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TWENTY-FIRST ANNUAL REPORT

OF THE

FIRE DEPARTMENT

OF THE

CITY OF BOSTON,

FROM

FEBRUARY 1, 1893, TO JANUARY 31, 1894.

BOSTON:
ROCKWELL AND CHURCHILL, CITY PRINTERS.
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Office of the Board of Fire Commissioners,
Old Court-House, Boston, February 1, 1894.

Hon. Nathan Matthews, Jr.,
Mayor of the City of Boston:

Sir: The Fire Commissioners herewith respectfully submit their twenty-first annual report of the work done by this department for the year ending January 31, together with certain recommendations looking to the extension and larger efficiency of the service.

Alarms and Losses.

The department year has been a very busy one. The resources available for the extinguishment of fires have been severely taxed, and the necessity of substantially strengthening them has been emphasized. There have been 1,718 alarms, an increase of 306 over the year previous, and considerably more than double the annual average eight and nine years ago. This means more than a twofold increase in actual fire duty as compared with a few years ago, and a corresponding increase in the work of administering the economic and disciplinary affairs of the department. The losses on buildings and contents amount to $4,348,902, the lion's share of which is due to the conflagration of March 10, on Lincoln street and vicinity, whose sudden and sweeping character and large proportions are vividly remembered, as should also be the lessons and warnings as to building construction and arrangement that were written in such glowing characters by that event.

Standing of the Department.

The story of department enlargement is a very short one. There is little to add in this respect to what was stated in last year's report. The new headquarters are very near completion, and will soon be ready for occupancy by the Commissioners and Chief at least, and in the course of a few months it is hoped to install therein a new fire-alarm plant that shall embody the latest and best features in this important branch of fire-service. Quite a handsome house at Ashmont will soon be ready for apparatus, and help to fill a gap in the fire protection of that section that is now alto-

gether too large. No advance has been made toward the location and construction of a horse sanitarium, and the city is still paying rent for quarters that are far from satisfactory for this particular purpose. An appropriation of $50,000 has been made for a new fire-boat, and the commissioners have set about securing the necessary plans and specifications to give this sum practical utility as soon as possible. This piece of apparatus will constitute, when completed, a very valuable reënforcement.

There is a great deal that needs to be done at the present time for the better protection of the city. The Boston and Maine system of railroads has already added sufficient hazard in Charlestown to make necessary another engine company somewhere in the vicinity of Prison Point, and the risk there is constantly increasing. An engine is needed somewhere near Day street, in Roxbury. At Grove Hall the city has for several years owned a site for a ladder and chemical engine house, but there is no money to proceed with the work. Chemical engines are needed in West Roxbury, Dorchester, and East Boston. A beginning has been made toward rebuilding the house of Ladder 1, but there is the same need for replacing the house of Ladder 13 with a new one. The sum of $300,000 could be expended at the present time for new houses and apparatus without exceeding in the slightest the legitimate needs of the department.

There are two matters of a very practical nature now before the City Council, of which the Board would ask very careful consideration. One is a request to petition the Legislature for authority to cause buildings of a certain class to be equipped with metallic ladders and stand-pipes, the same as in certain Western cities, where their value has been demonstrated many times over. The other is the proposition to run 12-inch pipes into the conflagration district from the harbor, for which the fire boat or boats will supply the power. The Board has made no suggestions that promise more protection for less money than these, and the sooner these systems are established the better it will be for all most deeply interested. Boston is behind even some of her smaller sister cities in these important respects.

Since the reorganization of the department, twenty years ago, there has been no rearrangement of the fire districts except in some slight details. The number has not been increased, and it must be evident to all that with the great growth of Boston during that time, the old system has become unwieldy in some of its parts, and not as convenient as it should be in its operations. For instance, District 10 includes half the territory of the city, and District 8 is not

well arranged for the best service of a single chief. This matter has been the subject of frequent discussion by the Commissioners, and only lack of means has prevented them from making the changes which their judgment has so strongly urged.

APPARATUS, EQUIPMENT, ETC.

The department is not relatively as strong in apparatus as it was a year and a half ago. It is sound policy on the part of business concerns employing machinery to charge a certain considerable percentage each year to depreciation; and, certainly, a fire department, which has at times to give its machinery exceptionally hard usage, cannot be exempt from this rule. No apparatus, in the strict sense of the term, has been purchased for about a year and a half; and, although the repair-shop has kept the present supply in good working condition, a yearly addition is necessary to prevent the department from falling behind. There are needed at the present time three new first-size steam-engines, an aerial ladder truck, a chemical engine, etc. What could be done at comparatively small expense to help the material part of the service has been done. More three-horse hitches have been put in, and, where practicable, two-horse hitches have been placed on the down-town hose wagons, thus enabling the companies to carry a larger amount of hose. A water-tower attachment has been made to each of the aerial ladders, and a few coal and hose wagons have been purchased. A wrecking wagon has been ordered, which will be a unique but valuable feature of the service.

CONSTITUTION OF THE FORCE.

The men employed in various capacities to run the department number a trifle over 800. Of these, about 600 are permanent firemen and 120 call men. The complaints that come from some sections of weakness in the companies appointed to protect their property can never be measurably satisfied until we have permanency throughout. The Commissioners dislike to renew their annual protest against a continuance of the call system, but they consider it their duty to do so, knowing that it is out of place and an element of weakness in a large city department. As has been said before, the call men are all right, but the call system is all wrong, at least for Boston. The drill and engine schools have done good work, and a high degree of discipline and efficiency prevails throughout the force.

Inspection of Wires.

The work of this bureau is given in detail elsewhere, and shows a busy record for the year. Legislation is now in process which promises to relieve the city in a few years of the incubus of the overhead system of wires; and, certainly, nothing can be done that will be more welcome to this department. The wires have been among the most serious obstacles against which it has had to contend, and, to a greater extent than is known, the cause of many of the battles it has had to wage.

Horses.

The city owns 237 horses, and has in extra service, for winter use, 60 more. During the year, 37 new horses were purchased, 23 sold or exchanged, 5 died, of which 2 were killed. The number of horses receiving treatment was 185, resulting in 350 cases, of which 150 were treated at the Horse Infirmary, and 15 were horses received for extra service. The horses of the department have been, and are, in generally excellent condition. During the year a horse-shoeing shop has been established at the Infirmary, and considerable work has been and is being done there.

The Department Allies.

The Board desires to thank the police for their cordial and efficient assistance. It has been the policy the past year to extend the fire-lines more than formerly, thus making their duties somewhat more exacting; but they have acted well up to the measure of their responsibility. The Fire Marshal's office has made a good record, and proved again its value as a coöperative bureau; and the Protective Department has shown its usual promptness and efficiency.

The Board of Fire Commissioners

consists of three members. One member is appointed annually, for a term of three years from the first Monday in May each year. The nomination is made by the Mayor, subject to confirmation by the Board of Aldermen.

Robert G. Fitch, *Chairman*, for three years from May, 1892. Term expires May, 1895.

John R. Murphy, for three years from May, 1891. Term expires May, 1894.

GEORGE H. INNIS, for three years from May, 1893. Term expires May, 1896.

Salaries, $3,500 each.

Benjamin F. Underhill, Jr., *Clerk*. Appointed by the Fire Commissioners. Salary, $2,400.

CHIEF OF DEPARTMENT.

LEWIS P. WEBBER, Headquarters, Old Court-House.

District Chiefs.

John F. Egan,	Headquarters,	Engine-house	9.
C. H. W. Pope,	"	Ladder	9.
Lewis P. Abbott,	"	Engine-house	25.
Wm. T. Cheswell,	"	"	4.
John W. Regan,	"	"	26.
John A. Mullen,	"	"	1.
Patrick E. Keyes,	"	"	3.
Edward H. Sawyer,	"	Hose-house	7.
Williston A. Gaylord,	"	H. and L. house	4.
J. Foster Hewins,	"	Engine-house	18.

CLERKS.

A. Charles Scott, Wm. E. Delano, Wm. McSweeney, M. J. Lafferty, Geo. F. Murphy.

D. J. Quinn, *Messenger*.

FORCE AND PAY-ROLL.

As established by the Board.

1	Chief of Department . .	$3,500	per annum.
1	Assistant Chief and Inspector of Hose and Harnesses . .	2,400	"
9	District Chiefs	2,000	"
1	Superintendent of Apparatus Repairs	2,000	"
1	Clerk	1,500	"
2	Clerks	1,000	"
1	Clerk	800	"
1	Clerk	600	"
1	Messenger	1,000	"

1	detailed man as Clerk, Apparatus Repair-shop	$750	per annum.
1	Veterinary Surgeon . . .	1,800	"
50	Captains	1,600	"
33	Lieutenants	1,400	"
41	Engine-men	1,300	"
286	Permanent Men . . .	1,200	"
53	" " . . .	1,100	"
28	" " . . .	1,000	"
44	Call Men	250	"
41	" "	200	"
42	" "	175	"
55	Permanent Substitutes . .	900	"
23	" " . .	720	"
4	Call Captains	325	"
1	Hostler	624	"
2	Watchmen	1,000	"

FIRE DISTRICTS.

The city is divided into ten fire districts, as follows:

DISTRICT 1. — Comprises all that part of Boston known as East Boston.

DISTRICT 2. — All that part of Boston formerly known as Charlestown.

DISTRICT 3. — All that part east of a line beginning at the Charles-river drawbridge, and running through the centre of Charlestown street, Haymarket square, and Washington to Summer street, and north of Summer street and the N.Y. & N.E. R.R. passenger depot to the water.

DISTRICT 4. — All that part west of District 3, and north of a line running through the centre of Winter and Park streets, and west of Beacon, to Arlington street, west side of Commonwealth avenue, to Chester Park, to water.

DISTRICT 5. — All that part south of Districts 3 and 4 to the centre of Dover-street drawbridge, and a line running through the centre of Dover, Berkeley, Boylston, east side of Commonwealth avenue, to Arlington, to Boylston street.

District 6. — All that part of Boston known as South Boston, and divided from District No. 9 by Locust and Dorset streets.

District 7. — All that part of Boston south of District 5, through the centre of Dover street, to the drawbridge; thence by water to the centre of East Chester park; thence through the centre of Albany and Northampton streets, Columbus avenue, West Chester park to east side of Commonwealth avenue to centre of Berkeley and Dover streets to the point of starting.

District 8. — All that part south and west of District 7 to the boundary line of West Roxbury, and west of Washington street to the Brookline boundary line, and including all of Ward 25, formerly Brighton.

District 9. — All that part south of Districts 6 and 7 to West Roxbury line, running through the centre of Seaver street, Blue Hill avenue, Columbia, Geneva avenue, Olney, Bowdoin, Hancock, Freeport streets, to corner of Dorchester avenue, thence due east to the water.

District 10. — All the southerly part of Boston south of Districts 8 and 9, including West Roxbury.

ASSIGNMENT OF DISTRICTS.

Each district is placed under the charge of a District Chief, as follows:

District.	Chief in Command.	Companies in District.			
		Engines.	Chemical Engines.	Hook and Ladder.	Hose.
1	John F. Egan	5, *9, 11, 40	7	2	. . . . .
2	C. H. W. Pope	27, 32, 36	9	*9	3
3	Lewis P. Abbott	8, *25, 31	. . . . .	8, 14	. . . . .
4	Wm. T. Cheswell	Tower 1, *4, 6, 10	1	1	8
5	John W. Regan	7, *26, 35	2	17	. . . . .
6	John A. Mullen	*1, 2, 15, 38, 39, 43	C.W. 2, 8	5	. . . . .
7	Patrick E. Keyes	*3, 22, 23, 33, Tower 2	. . . . .	3, 13, 15	5
8	Edward H. Sawyer . . .	13, 14, 29, 34, 37, 41	3, 6	11, 12	*7
9	Williston A. Gaylord . .	12, 17, 21, 24, 42	5, 10	*4, 7	. . . . .
10	J. Foster Hewins	16, *18, 19, 20, 28, 30	C. W. 1	6, 10, 16	. . . . .

* Headquarters of District Chief.

WATER AND HYDRANTS.

The total number of hydrants in the city February 1 was 6,373. In addition to these hydrants there are 238 fire reservoirs in different sections of the city that contain from 300 to 500 hogsheads of water, and can be used in an emergency.

The number of hydrants established and abandoned during the year is as follows:

	Established.					Abandoned.					Net Increase.
	Lowry.	Post.	Boston Lowry.	Boston.	Total.	Lowry.	Post.	Boston Lowry.	Boston.	Total.	
Boston (City Proper)	20	20	2	. .	42	2	1	4	8	15	27
South Boston	4	6	2	. .	12	1	. .	1	3	5	7
Roxbury	2	32	2	4	40	6	. .	4	6	16	24
Dorchester	3	61	6	. .	70	2	1	9	5	17	53
W. Roxbury	4	54	13	. .	71	1	. .	6	2	9	62
Brighton	2	14	4	. .	20	. .	1	4	. .	5	15
Rainsford Island	. .	. .	. .	1	1	. .	. .	. .	. .	. .	1
Charlestown	4	. .	. .	. .	4	. .	. .	. .	. .	. .	4
Total	39	187	29	5	260	12	3	28	24	67	193

Total Number of Hydrants in Use January 31, 1894.

	Lowry.	Post.	Boston Lowry.	Boston Y.	Boston.	Total.
Boston (City Proper)	691	246	66	...	510	1,513
South Boston	214	93	21	1	259	588
East Boston	138	84	24	...	138	384
Roxbury	663	195	63	...	95	1,016
Dorchester	575	423	184	...	67	1,249
West Roxbury	122	468	166	...	48	804
Brighton	79	269	59	...	36	443
Deer Island	...	16	...	...	...	16
Brookline	5	...	...	...	3	8
Chelsea	...	...	...	...	7	7
Quincy	...	7	...	...	...	7
Long Island	...	4	...	...	...	4
Thompson's Island	...	2	...	...	...	2
Rainsford Island	...	...	...	...	1	1
Charlestown	205	58	33	...	38	334
	2,692	1,865	616	1	1,202	6,376

In all cases the Water Board have cheerfully complied with the requests of this Board in the establishment of hydrants, whenever necessity required.

The following property is in charge of the Board of Commissioners of the Fire Department:

ENGINE-HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 1 . . .	Dorchester street	5,698	Addition built, 1874. Municipal Court, South Boston, and two classes, Bigelow School, in this building.
2 . . .	Cor. of O and Fourth streets .	4,000	
3 . . .	Bristol st. and Harrison ave. .	4,000	Ladder No. 3 in this building.
4 . . .	Bulfinch street	6,098	Chemical Engine No. 1, Lancers' Armory, and water-tower in this building.
5 . . .	Marion street, E.B.	1,647	
6 . . .	Leverett street	. . . . .	
7 . . .	East street	1,893	
8 . . .	Salem street	2,568	
9 . . .	Paris street, E.B.	4,000	Reconstructed, 1890-91. Ladder No. 2 in this building.
10 . . .	River street	1,886	
11 . . .	Saratoga and Byron streets . .	10,000	
12 . . .	Dudley street	7,161	
13 . . .	Cabot street	4,305	Remodelled, 1870.
14 . . .	Centre street	5,627	
15 . . .	Dorchester avenue	2,843	
16 . . .	River street, Dorchester Dist.	12,736	Ladder No. 6 in this building.
17 . . .	Meeting-house Hill, Dorchester Dist.	. . . . .	Ladder-House No. 7 on this lot.
18 . . .	Harvard street, Dor. Dist. . .	10,225	
19 . . .	Norfolk street, " . .	7,683	
20 . . .	Walnut street, " . .	9,000	
21 . . .	Boston street, " . .	9,355	
22 . . .	Dartmouth street	4,463	
23 . . .	Northampton street	3,445	
24 . . .	Cor. Warren and Quincy sts. .	4,186	
25 . . .	Fort Hill square	4,175	Ladder No. 8 and Ladder 14 in this building.
26 . . .	Mason street	6,385	Engine No. 35 in this building.
27 . . .	Elm street, Charlestown Dist.,	2,600	
28 . . .	Centre street, W. Roxbury District	10,377	Ladder No. 10 in this building.
29 . .	Chestnut Hill ave., Brighton District	14,356	Ladder No. 11 in this building.
30 . . .	Mt. Vernon street, West Roxbury District	16,275	
32 . . .	Bunker Hill street	8,000	Built, 1883-84.
33 . . .	Cor. Boylston and Hereford streets	5,646	Ladder No. 15 in this building.

ENGINE-HOUSES. — *Concluded.*

	Location.	No. of feet in lot.	Remarks.
No. 34 . . .	Western ave., Brighton.		
36 . . .	Monument street	5,668	
37 . . .	Cor. Longwood and Brookline avenues	5,400	Occupied by Chemical Eng. No. 3.
38–39 .	Congress street.		
40 . . .	Sumner st., East Boston . . .	4,010	
41 . . .	Harvard ave., near Cambridge street, Brighton District . .	6,112	Chem. Eng. 6 in this building; built in 1892.
42 . . .	Washington street, between Atherton and Beethoven . .	3,848	Chem. Eng. 5 in this building; built in 1892.
43 . . .	Andrews square	5,225	
	CHEMICAL ENGINE-HOUSES.		
No. 1 . . .	Bulfinch street	. . . . .	See Engine house 4.
2 . . .	Church street	3,412	
3 . . .	Cor. Longwood and Brookline avenues	. . . . .	See Engine-house 37.
Comb'ation Wagon 1 .	Poplar st., cor. of Washington, West Roxbury	14,729	Ladder No. 16 in this building.
No. 5 . . .	Washington street, between Atherton and Beethoven . .	3,848	Engine No. 42 in this building.
6 . . .	Harvard ave., near Cambridge street, Brighton District . .	6,112	Engine No. 41 in this building.
7 . . .	Chelsea street, East Boston . .	1,346	
8 . . .	B street	1,804	
9 . . .	Main street	. . . . .	See Ladder-house 9.
10 . . .	Eustis street	700	

HOSE-HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 3 . . .	Winthrop street	5,230	Armory in building.
5 . . .	Shawmut avenue	889	
7 . . .	Tremont street	4,350	Ladder No. 12 in this building.
8 . . .	North Grove street	3,918	
Comb'ation Wagon 2 .	Fourth street	3,101	Remodelled, 1870.

HOOK-AND-LADDER HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 1 . . .	Friend street	1,676	
2 . . .	Paris street, East Boston . . .	. . . . .	See Engine-house 9.
3 . . .	Harrison avenue	. . . . .	See Engine 3.
4 . . .	Dudley street	3,923	
5 . . .	Fourth street	2,469	
6 . . .	River street, Dorchester . . .	. . . . .	See Engine-house 16.
7 . . .	Meeting-house Hill	. . . . .	See Engine 17.
8 . . .	Fort Hill square	. . . . .	See Engine Co. 25.
9 . . .	Main street, Charlestown . . .	2,430	Chemical 9 in this building.
10 . . .	Centre street, W.R.	. . . . .	See Engine-house 28.
11 . . .	Chestnut Hill ave., Brighton District	. . . . .	See Engine-house 29.
12 . . .	Tremont street	. . . . .	See Hose-house 7; rebuilt 1892.
13 . . .	Washington, near Dover street,	1,007	
14 . . .	Fort Hill square	. . . . .	See Engine-house 25.
15 . . .	Boylston, cor. Hereford street,	. . . . .	Engine 33 in this building.
16 . . .	Roslindale	. . . . .	See Combination Wagon 1.
17 . . .	Harrison avenue	. . . . .	Built in 1892.

Fuel-house, Salem street, 417 feet of land.
Fuel-house, Main street, Charlestown, 1,592 feet of land.
Repair-shop, corner of Albany and Bristol streets, 20,547 feet.

HOSE.

Amount of hose purchased and condemned since February 1, 1893, to January 31, 1894, is as follows:

	Purchased.	Condemned.
Leading, Cotton,	14,000 feet.	13,850 feet.
" Rubber,	3,000 "	3,450 "
Chemical,	1,000 "	1,350 "
Suction,	143 "	123 "
Total,	18,143 "	18,773 "

Amount of hose in use and in storehouse February 1, 1894:

	In use.	In storehouse.
Cotton,	60,547 feet.	9,100 feet.
Rubber,	5,188 "	1,550 "
Chemical,	4,745 "	500 "
Suction,	977 "	118 "
Hand,	3,061 "	
Total,	74,518 "	11,268 "

Recapitulation of the Number of Alarms of Fire, and the Losses and Insurance on the same, from

	Alarms.	Losses.	Insurance.	Population.
Sept. 1, 1829, to August 31, 1830	110	$118,540	$52,750	61,392
" 1830, " 1831	62	23,620	4,320	
" 1831, " 1832	89	68,195	40,975	
" 1832, " 1833	159	74,613	25,713	
" 1833, " 1834	130	69,405	37,925	
" 1834, " 1835	109	107,440	45,970	78,603
" 1336, " 1837	159	130,295	55,125	
" 1837, " 1838	105	32,118	20,238	
" 1838, " 1839	96	140,004	61,191	
" 1839, " 1840	113	77,973	58,632	85,000
" 1840, " 1841	140	102,975	36,920	
" 1841, " 1842	194	102,118	44,533	
" 1842, " 1843	232	128,666	90,086	
" 1843, " 1844	267	164,083	95,252	
" 1844, " 1845	223	234,591	169,440	114,366
" 1845, " 1846	289	226,338	155,205	
" 1846, " 1847	270	172,973	87,159	
" 1847, " 1848	282	222,273	162,085	
" 1848, " 1849	339	300,525	216,992	
" 1849, " 1850	240	123,660	76,197	138,788
" 1850, " 1851	333	386,107	192,937	
" 1851, " 1852	169	402,849	215,315	
" 1852, " 1853	205	515,167	295,056	
" 1853, " 1854	195	150,772	106,880	
" 1854, " 1855	174	537,604	361,047	160,508
" 1855, " 1856	167	409,353	287,832	
" 1856, " 1857	164	258,231	233,787	
" 1857, " 1858	161	390,657	316,207	
" 1858, " 1859	166	761,370	646,210	
" 1859, " 1860	194	521,383	471,853	177,902
" 1860, " 1861	172	617,213	405,928	
" 1861, " 1862	172	1,107,569	806,433	
" 1862, " 1863	141	367,429	120,909	
" 1863, " 1864	188	858,381	493,369	
" 1864, " 1865	131	559,749	318,067	
" 1865, " 1866	221	681,554	474,171	192,324
" 1866, to Dec. 31, 1866	64	408,560	383,700	

Recapitulation. — *Concluded.*

	Alarms.	Losses.	Insurance.	Population.
Jan. 1, 1867, to Dec. 31, 1867	284	$402,115	$340,775	
" 1868, " 1868	293	401,106	314,706	250,750
" 1869, " 1869	385	447,723	335,975	
" 1870, " 1870	497	855,571	786,463	
" 1871, " 1871	549	704,329	534,991	
" 1872, " 1872	640	[1] 1,516,549	1,293,983	
" 1873, " 1873	620	2,680,953	2,010,633	
" 1874, to April 30, 1874	291	941,483	1,607,782	
May 1, 1874, " 1875	702	1,228,403	3,677,008	342,000
" 1875, " 1876	483	541,272	3,076,483	
" 1876, " 1877	509	481,354	2,827,528	
" 1877, " 1878	514	516,000	3,803,910	
" 1878, " 1879	563	403,451	3,591,948	
" 1879, " 1880	571	1,260,490	4,602,591	
" 1880, " 1881	731	1,183,818	6,543,006	362,000
" 1881, " 1882	595	615,836	4,849,246	
" 1882, " 1883	727	814,154	7,299,353	
" 1883, " 1884	793	998,554	7,981,807	
" 1884, " 1885	927	1,593,393	8,068,295	
" 1885, " 1886	785	821,848	7,082,541	
" 1886, " 1887	827	911,999	6,771,654	
" 1887, " 1888	975	784,667	10,165,625	
" 1888, " 1889	962	1,078,333	12,146,904	
" 1889, " 1890	963	4,746,869	16,023,952	
" 1890, to Jan., 1891	679	556,597	9,397,054	449,000
Jan. 1, 1891, to Feb. 1, 1892	1,230	1,629,413	19,247,795	
Feb. 1, 1892, " 1893	1,412	1,926,897	22,674,186	
" 1893, " 1894	1,718	4,348,902	27,875,355	

Total number of actual fires	1,464
Confined to one building	1,056
Extended to others	27
Wharves, vessels, grass, etc.	302
Out of the city	7

BUILDINGS.

Slightly damaged	691
Considerably damaged	78
Totally destroyed	26
Not damaged	344

[1] The losses and insurance of the great fire of the 9th of November, 1872, are not included in the above table. The amount of property destroyed can be set down at $75,000,000; the area, 65 acres; buildings destroyed, 776, of which 709 were brick and stone, and 67 wood.

TABLE No. 1.

MONTHS.	ALARMS RECEIVED. FROM WHOM.							LOSS.		INSURANCE.		ALARMS. TELEGRAPH			STILL				BUILDINGS.					
	Fire patrol.	Members.	Police.	Citizens.	Automatic.	Unknown.	Total.	Buildings.	Contents.	Buildings.	Contents.	Fire.	False.	Needless.	Still.	Confined to Building.	Extended to others.	No fire.	No Damage.	Slight Damage.	Considerable D'ge.	Totally Destroyed.	Out of the City.	Wharf, Vessels, Coal-pile, Tree, Grass, Rubbish, etc.
February	.	7	13	77	4	4	105	$30,036	$186,531	$763,600	$158,500	59	4	13	29	73	1	8	18	49	8	1	1	6
March	1	5	9	102	2	2	121	1,219,827	2,102,278	2,935,377	3,977,597	56	1	18	46	89	3	7	27	75	9	11	. .	3
April	2	1	10	80	1	3	97	20,198	46,695	917,746	349,300	48	3	12	34	60	1	9	14	40	6	2	. .	12
May	1	5	24	84	3	. .	117	19,346	23,462	882,144	623,520	58	. .	15	44	77	4	9	27	49	8	2	1	11
June	5	3	20	75	6	3	112	10,355	18,114	976,020	1,135,370	42	2	16	52	60	. .	7	18	40	3	. .	. .	27
July	24	40	56	159	3	3	285	12,530	50,071	566,710	591,447	84	3	14	184	112	2	8	31	81	5	3	1	142
August	2	7	4	95	3	1	112	6,807	9,298	549,777	155,550	45	1	11	55	68	1	17	19	48	2	1	. .	12
September	8	13	12	104	2	2	141	10,764	22,343	979,983	231,825	43	1	15	82	70	2	17	25	43	5	1	1	32
October	3	8	14	102	2	8	137	26,965	37,912	745,818	1,497,025	51	6	19	61	92	4	. .	39	64	6	. .	1	14
November	7	10	17	114	4	4	156	19,241	47,056	1,010,700	1,068,530	65	5	23	63	109	3	2	65	57	6	2	. .	18
December	2	11	27	131	7	4	182	96,475	145,613	2,195,350	2,024,855	80	5	31	66	138	5	1	33	97	15	2	1	14
January	3	11	15	116	4	4	153	97,481	89,501	1,452,600	1,086,011	65	7	29	52	108	1	. .	28	48	5	1	1	11
Totals	58	121	221	1239	41	38	1718	$1,570,0	$2,778,877	$13,975,825	$13,899,530	696	38	216	768	1056	27	85	344	691	78	26	7	302

TABLE No. 2.

Exhibiting the Number of Alarms for the Days of the Week from February 1, 1893, to February 1, 1894.

MONTHS.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Totals.	REMARKS. Alarms not included.
February	10	14	12	18	19	17	15	105	4 second alarms not included.
March	20	13	15	27	23	16	7	121	1 second, 1 third, and 1 general alarms not included.
April	16	8	7	19	17	16	14	97	3 second alarms not included.
May	20	14	23	15	17	14	14	117	2 second and 1 third alarms not included.
June	10	16	15	17	12	20	22	112	1 second alarm not included.
July	18	56	127	28	13	16	27	285	2 second alarms not included.
August	16	9	21	23	26	9	8	112	
September	16	16	23	25	13	28	20	141	
October	27	22	26	17	14	19	12	137	4 second alarms not included.
November	23	18	20	20	27	27	21	156	1 second alarm not included.
December	25	14	23	28	36	26	30	182	4 second, 1 third, and 1 fourth alarms not included.
January	25	19	17	31	24	18	19	153	4 second, 1 third, and 1 fourth alarms not included.
Totals	226	219	329	268	241	226	209	1,718	26 second, 4 third, 2 fourth, and 1 general alarms not included.

TABLE NO. 3.

Exhibiting the Number of Alarms for each Hour of the Day, from February 1, 1893, to February 1, 1894.

MONTHS.	A.M.													P.M.													
	12 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	Total A.M.	12 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	Total P.M.	Grand Total.
February	3	3	3	2	5	3	2	2	5	2	7	4	41	4	6	2	5	8	6	8	9	3	7	2	4	64	105
March	6	1	2	6	1	0	3	3	7	5	8	5	47	8	5	1	4	4	6	9	11	9	3	7	7	74	121
April	3	2	1	4	1	1	3	2	3	2	3	10	35	4	3	1	6	5	3	8	4	7	10	9	2	62	97
May	2	2	3	7	1	2	2	3	8	6	7	8	51	3	3	2	5	5	3	4	12	12	6	5	6	66	117
June	5	5	2	3	0	0	6	3	3	4	7	4	42	4	8	5	5	7	4	3	5	4	14	9	2	70	112
July	17	9	13	19	3	3	2	4	5	10	12	8	105	12	9	10	7	8	9	4	9	20	37	31	24	180	285
August	2	2	3	1	2	2	1	1	4	4	5	4	31	10	6	3	4	8	6	9	7	14	7	4	3	81	112
September	5	3	3	4	2	1	4	2	10	3	11	4	52	9	4	2	4	8	8	14	8	13	13	4	2	89	141
October	5	3	1	1	2	1	3	5	0	8	6	2	37	9	6	11	6	6	9	10	13	11	10	4	5	100	137
November	3	2	1	1	1	3	1	3	7	6	9	8	45	9	6	8	10	9	18	6	9	16	9	5	6	111	156
December	8	4	5	5	2	5	9	4	5	10	6	4	67	8	3	7	7	12	17	16	7	16	12	6	4	115	182
January	3	6	1	3	6	5	3	0	4	6	12	5	54	7	6	8	3	11	11	15	10	12	7	4	5	99	153
Totals	62	42	38	56	26	26	39	32	61	66	93	66	607	87	65	60	66	91	100	106	104	137	135	90	70	1,111	1,718

TABLE No. 4.

Showing the Number of Alarms for the Different Sections of the City from February 1, 1893, to February 1, 1894.

Months.	District No. 1.					District No. 2.					District No. 3.					District No. 4.					District No. 5.					District No. 6.					District No. 7.					District No. 8.					District No. 9.					District No. 10.					Total Alarms.
	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	Bells.	Stills.	False.	Needless.	Total.	
February . . .	4	.	.	1	4	3	.	.	.	3	18	3	1	3	21	12	7	1	3	19	16	4	.	1	20	6	3	1	.	9	2	6	.	1	8	2	3	.	2	5	5	3	1	.	8	6	2	.	2	8	105
March	5	4	.	1	9	7	5	0	5	12	9	7	1	.	16	10	6	.	2	16	11	11	.	1	22	11	2	.	2	13	4	5	.	1	9	7	2	.	3	9	3	2	.	1	5	8	2	.	2	10	121
April	4	7	.	.	11	7	3	.	1	10	8	2	.	.	10	6	2	.	2	8	6	.	.	.	6	9	.	1	3	9	4	3	.	.	7	6	5	2	2	11	4	6	.	1	10	9	6	.	3	15	97
May	1	5	.	.	6	8	1	.	4	9	14	5	.	3	19	9	2	.	.	11	8	5	.	.	13	5	11	.	1	16	6	7	.	2	13	8	3	.	2	11	5	1	.	1	6	9	4	.	2	13	117
June	4	12	.	.	16	8	3	1	3	11	11	1	1	.	12	6	6	.	2	12	11	12	.	2	23	5	5	.	2	10	3	7	.	2	10	4	2	.	.	6	4	1	.	3	5	4	3	.	2	7	112
July	4	35	.	.	39	9	5	1	1	14	17	5	.	3	22	10	12	.	1	22	8	18	.	.	26	18	47	1	6	65	6	21	.	1	27	9	18	.	1	27	4	13	.	.	17	16	10	1	1	26	285
August	6	7		1	13	5	4	.	2	9	2	5	.	1	7	9	7	.	.	16	10	9	.	1	19	4	7	.	2	11	6	4	.	.	10	6	4	.	2	10	3	4	.	2	7	6	4	1	.	10	112
September . .	4	5	.	.	9	8	3	1	.	11	5	15	.	1	20	9	11	.	6	20	14	17	.	4	31	7	4	.	2	11	2	14	.	.	16	5	6	.	1	11	3	4	.	1	7	2	3	.	.	5	141
October	4	4	3	.	8	8	4	.	2	12	9	9	2	3	18	13	10	.	4	23	8	10	.	2	18	2	6	.	.	8	7	8	.	3	15	4	7	.	3	11	1	9	.	1	10	7	7	1	1	14	137
November . .	6	7		2	13	7	6	2	1	13	8	5	.	2	13	10	7	1	1	17	10	9	.	2	19	8	6	.	1	14	9	11	2	6	20	10	15	.	4	25	3	3	.	1	6	5	11	.	1	16	156
December . .	7	3	2	1	10	7	5		3	12	10	13	1	10	23	13	16	1	3	29	15	23	.	4	38	8	4	.	.	12	6	8	.	5	14	11	7	.	3	18	6	7	.	.	13	10	3	1	2	13	182
January . . .	3	7	1	1	10	8	5	1	5	13	6	2	.	1	8	13	12	.	4	25	11	17	4	5	28	7	11	.	5	18	10	9	.	4	19	8	5	1	1	13	3	4	.	2	7	9	3	.	1	12	153
Totals . . .	52	96	6	7	148	85	44	6	27	129	117	72	6	27	189	120	98	3	28	218	128	135	4	22	263	90	106	3	24	196	65	103	2	25	168	80	77	3	24	157	44	57	1	13	101	91	58	4	17	149	1,718

TABLE NO. 5.

Showing the Different Causes of Fires and Alarms, from February 1, 1893, to February 1, 1894.

Alarms, accidental, automatic	13
" needless	216
" false	38
" out-of-town fire	5
Ashes, hot, in wooden receptacle	28
Boiling over of tar or fat	9
Bonfires — grass, rubbish, etc.	186
Building fire with kerosene	3
Chimneys, burning of soot in	51
Careless use of lamps, candles, etc.	26
" " fire	5
" pipe or cigars	30
" smoking	9
" clothes too near stove	7
Defective flue	24
" stove-pipe	3
" grate	3
" furnace	8
Electric motor igniting car	33
Electric wires	40
Explosion of chemicals	10
Fireworks	25
Friction of machinery	6
Gas, explosion of	10
" ignition of leaky pipe	8
" jet setting fire	39
Hot iron and coals igniting woodwork	11
Incendiary	32
" supposed	18
Ignition of spirit or chemicals	14
Light mistaken for fire	4
Kerosene lamp, breaking or explosion	101
" " upsetting of	33
" stove, careless use of and explosion	48
Matches and rats	32
" careless use of	62
" children playing with	58
Overheated stove	26
" furnace or oven	17
" steam-pipe or boiler	15
Slacking of lime	7
Spontaneous combustion	63

Sparks from another fire	1
" " furnace or stove	19
" " engine	4
" " locomotive	22
" " forge	8
" " chimney	22
Unknown	241
Upsetting stove	2
Water-pipes, thawing out of	16
Wood in oven igniting	4
Struck by lightning	6
Total	1,718

Respectfully submitted,

Robert G. Fitch,
John R. Murphy,
George H. Innis,
Fire Commissioners.

APPENDIX.

The following tables show the location of the several pieces of apparatus in service or reserved, together with the name of the builder and when put in service; also a statement of the hydrants and reservoirs in use, the reports of Commissioner John R. Murphy on Foreign Fire-service, and the City Engineer on Tests of Engines, and the fires and alarms from February 1, 1893, to February 1, 1894:

STEAM FIRE-ENGINE COMPANIES.

No.	Location.	Built by.	Put in Service.	Cylinder. Diameter.	Cylinder. Stroke.	Pump. Diameter.	Pump. Stroke.	Amount of Water delivered at 300 revolutions per minute.	
1	Dorchester, near Fourth, S.B.	Amoskeag Mfg. Co.	Sept. 17, 1872	7⅝	8	4½	8	Double.	630 gallons.
2	Fourth st., cor. O, S.B.	Manchester Loco. Works	Nov., 1890	6⅛	8	4	8	Double.	496 gallons.
3	Harrison ave., cor Bristol	Clapp & Jones	Aug. 22, 1890	9	8	5½	8	Double.	961 gallons.
4	Bulfinch st.	Clapp & Jones	Feb. 22, 1893	9	8	5½	8	Double.	961 gallons.
5	Marion st., E.B.	Amoskeag Mfg. Co.	Nov., 1869	7⅝	8	4⅜	8	Double.	593 gallons.
6	Leverett st.	Silsby Mfg. Co.	April 11, 1890	Rotary		...	...	Rotary.	700 gallons.
7	East st.	Clapp & Jones	April 10, 1890	8	7	5	7	Double.	691 gallons.
8	Salem st.	Freeman & Jucket	April 26, 1869	7¼	8	4½	8	Double.	630 gallons.
9	Paris st., E.B.	Hunneman & Co.	Oct. 14, 1872	7¼	8	4½	8	Double.	630 gallons.
10	Cor. Vernon and River sts.	Amoskeag Mfg. Co.	Feb. 1, 1870	7⅝	8	4⅜	8	Double.	593 gallons.
11	Cor. Saratoga and Byron sts., E.B.	Amoskeag Mfg. Co.	April 9, 1873	6⅞	8	4¼	8	Double.	561 gallons.
12	Dudley st.	Manchester Loco. Works	March 27, 1882	6⅞	8	4¼	8	Double.	561 gallons.
13	Cabot st.	Freeman & Jucket	April 10, 1870	7¼	8	4⅜	8	Double.	593 gallons.
14	Centre st.	Amoskeag Mfg. Co.	Sept. 17, 1870	7⅝	8	4⅜	8	Double.	593 gallons.
15	Dorchester ave. and Broadway	Clapp & Jones	Feb., 1893	9	8	5½	8	Double.	961 gallons.
16	Temple st., Dorchester	Silsby Mfg. Co.	April 8, 1890	Rotary		.....	....	Rotary.	700 gallons.
17	Meeting-House Hill	Amoskeag Mfg. Co.	Sept. 1, 1870	7⅝	8	4⅜	8	Double.	593 gallons.
18	Harvard st., Dorchester	Manchester Loco. Works	Nov., 1890	6⅛	8	4	8	Double.	496 gallons.
19	Norfolk st., Dorchester	Clapp & Jones	Dec. 5, 1891	7	7	4⅜	7	Double.	524 gallons.
20	Walnut st., Dorchester	Manchester Loco. Works	Nov., 1890	6⅛	8	4	8	Double.	496 gallons.
21	Boston st., Dorchester	Clapp & Jones	Dec. 10, 1893	7	7	4⅜	7	Double.	524 gallons.
22	Dartmouth st.	Silsby Mfg. Co.	Aug. 7, 1882	Rotary		.....	...	Rotary.	700 gallons.
23	Northampton st.	Silsby Mfg. Co.	Sept. 12, 1890	Rotary		.....	....	Rotary.	700 gallons.
24	Warren, cor. Quincy st.	Clapp & Jones	Feb. 24, 1888	7	7	4⅜	7	Double.	524 gallons.
25	Fort Hill sq.	Clapp & Jones	Nov., 1890	9	8	5½	8	Double.	961 gallons.

26	Mason st.	Clapp & Jones	April 1, 1890	8	7	5	7	Double.	691 gallons.
27	Elm st., Charlestown	Amoskeag Mfg. Co.	July 1, 1872	7⅝	8	4½	8	Double.	630 gallons.
28	Centre st., W. Roxbury	Silsby Mfg. Co.	April 28, 1886	Rotary		.....	....	Rotary.	700 gallons.
29	Chestnut Hill Ave., Brighton	Hunneman & Co.	Jan. 1, 1874	7¼	8	4⅜	8	Double.	599 gallons.
30	Mt. Vernon st., W. Roxbury	Clapp & Jones	Oct. 9, 1891	7	7	4⅜	7	Double.	524 gallons.
31	South side India wharf { Fire-boat. }	Clapp & Jones	July 3, 1889	16	10	9	10	2 sets of pumps.	6,414 gallons.
32	Bunker Hill st., Charlestown	Manchester Loco. Works.	Mar. 28, 1884	6⅞	8	4¼	8	Double.	561 gallons.
33	Boylston st.	Silsby Mfg. Co.	Feb. 20, 1888	Rotary		.....	....	Rotary.	700 gallons.
34	Western ave.	Hunneman & Co.	Jan. 12, 1871	7¼	8	4½	8	Double.	581 gallons.
35	Mason st.	Clapp & Jones	Aug. 9, 1890	9	8	5½	8	Double.	961 gallons.
36	Monument st., Charlestown	Manchester Loco. Works.	Dec., 1890	6⅛	8	4	8	Double.	496 gallons.
37	Longwood ave.	Amoskeag Mfg. Co.	July 1, 1867	7⅝	8	4⅜	8	Double.	593 gallons.
38	Congress st.	Clapp & Jones	Nov., 1890	9	8	5½	8	Double.	961 gallons.
39	Congress st.	Amoskeag Mfg. Co.	Dec. 15, 1879	6⅞	8	5¼	8	Double.	561 gallons.
40	Sumner st., E. B.	Silsby Mfg. Co.	May 18, 1891	Rotary		.....	....	Rotary.	700 gallons.
41	Harvard ave., Brighton	Clapp & Jones	Feb., 1893	7	7	4⅜	7	Double.	524 gallons.
42	Egleston sq., W. R.	Silsby Mfg. Co.	Feb., 1893	Rotary		.....	...	Rotary.	550 gallons.
43	Andrew sq., S. B.	Clapp & Jones	Mar. 3, 1893	7	7	4⅜	7	Double.	524 gallons.

In Reserve.

A	Manchester Loco. Works.	May, 1886	6⅞	8	4¼	8	Double.	561 gallons.
Relief C	Hunneman & Co.	Oct., 1873	7¼	8	4½	8	Double.	630 gallons.
" E. Old No. 4	Amoskeag Mfg. Co.	Nov., 1867	7⅝	8	4½	8	Double.	630 gallons.
" F. " Mystic	Amoskeag Mfg. Co.	Sept., 1865	8	12	4¼	12	Double.	829 gallons.
" G.	Silsby Mfg. Co.	Sept., 1880	Rotary		.....	....	Rotary.	900 gallons.
Old No. 17	Hunneman & Co.	March, 1867	7¼	8	4⅜	8	Double.	593 gallons.
D. Old No. 25	Silsby Mfg. Co.	July, 1884	Rotary		.....	...	Rotary.	700 gallons.
B. " " 21	Manchester Loco. Works.	March 1, 1882	6⅞	8	4¼	8	Double.	561 gallons.
H.	Amoskeag Mfg. Co.	Dec. 1, 1869	7⅝	8	4½	8	Double.	630 gallons.

Old engine out of service, No. 30.

CHEMICAL-ENGINE COMPANIES.

Number.	Location.	Builders.	Put in Service.	Weight as drawn to Fires.	Capacity, Gall.
1	Bulfinch street	Babcock Manufacturing Co.	Oct. 4, 1890.	5,080 lbs.	100
2	Church street	" " "	April 25, 1874.	5,500 "	160
3	Longwood avenue	" " "	July 27, 1874.	3,720 "	100
Comb. Wagon, 1	Washington street, Roslindale	" " "	Mar. 10, 1892.	3,705 "	100
5	Egleston square	C. H. Holloway.	Sept. 21, 1876.	5,134 "	170
6	So. Harvard ave., Brighton	Babcock	May 1, 1876.	5,030 "	160
7	Chelsea street, E. B.	Altered by Hinman	Sept. 27, 1886.	3,000 "	100
8	B street, S. B.	" " "	Oct. 27, 1887.	5,130 "	160
9	Main street, Charlestown	Rebuilt by Hinman	July 17, 1889.	2,990 "	100
10	Eustice street, Roxbury	" " "	Sept. 13, 1889.	2,990 "	100
Comb. Wagon, 2.	Fourth, between K and L sts,, S. B.	C. H. Holloway	May 12, 1893.	3,705 "	100

In Reserve.

11	Repair-shop	Rebuilt by Hinman	July 17, 1889.	2,900 lbs.	100
One new	"	Babcock Manufacturing Co.	Oct. 4, 1890.		100
" "	Combination Wagon	" " "			

HORSE-HOSE COMPANIES.

Number.	Location.	Built by	Put in Service.	Weight as drawn to Fires.
				Lbs.
3	Winthrop street, Charlestown	Amoskeag Manufacturing Co.	Sept. 13, 1888.	2,830
5	Shawmut avenue	L. B. Button, N.Y.	Sept. 17, 1870.	2,850
7	Tremont street	Amoskeag Manufacturing Co.	July 4, 1868.	2,830
8	No. Grove street	" " "	July 4, 1868.	3,175

In Reserve — Hose-Carriage Relief, A, B, D, E, F, G.
" Old wagons of Engine 9-15, and Hose 4.

HOOK-AND-LADDER COMPANIES.

Number.	Location.	Builders.	Put in Service.	Weight as drawn to Fires.	Number of Ladders.
				Lbs.	
1	Warren square	Abbott-Downing Co.	December 20, 1890.	8,800	12
2	Paris street, E. B.	" " "	April 20, 1891.	9,805	12
3	Harrison ave., cor. Bristol st.	" " "	June 2, 1886.	9,535	22
4	Dudley street, Highland District	La France Fire-Engine Co., Elmira, N.Y.	April 25, 1884.	8,365	Hayes Extension.
5	Fourth street, near Dorchester	Hunneman & Co.	March 3, 1870.	6,050	17
6	Temple street, Dorchester	" "	August 18, 1873.	6,043	19
7	Meeting-House Hill	Juckett & Freeman	January, 1869.	6,560	14
8	Fort Hill square	Abbott & Downing	January 30, 1890.	9,535	14
9	Main street, Charlestown	Leverich & Co., N.Y.	October 6, 1872.	5,820	19
10	Centre street, Jamaica Plain	Hunneman & Co.	December 21, 1870.	5,400	12
11	Chestnut Hill avenue, Brighton	" "	January, 1874.	4,350	13
12	Tremont street, Highland District,	Ryan Bros.	July 31, 1880.	6,850	15
13	Washington street, near Dover	La France Fire-Engine Co., Elmira. N.Y.	March 12, 1890.	6,800	Hayes Extension.
14	Fort Hill square	Fire Extinguisher Manufacturing Co., Chicago	January 30, 1893.	10,000	Extension.
15	Boylston street	Fire Extinguisher Manufacturing Co., Chicago	April 28, 1888.	10,600	Extension.
16	Roslindale	Repair-shop	September, 1888.	5,400	15 Extension.
17	Harrison avenue	Preston Co., Chicago	April 29, 1891.	11,975	87 feet.

HOOK-AND-LADDER TRUCKS.—In Reserve.

	Description.	Builders.	Put in Service.	Weight as drawn to Fires.
	Relief C, formerly old No. 2.			
	Relief A, old 3	Hunneman & Co.	April 25, 1885.	*Lbs.* 8,375
	" B, old 8	Repair-shop.		
	Aerial Ladder	Aerial Ladder Co.	March 28, 1876.	6,000
	One new	Abbott-Downing Co.	1890.	9,535
	Old Ladder 4	Hunneman & Co.	April 13, 1872.	8,065

FUEL-WAGONS.

Location.	Builder.	Put in Service.	Number of Coal Boxes.	Weight of Wagon.	Weight of Coal.
Engine-house No. 11, Sumner street, E. Boston	.....	.....	8	1,260 lbs.	990 lbs.
Coal Depot, Main street, Charlestown	Abbott & Downing	1865.	8	1,200 "	1,600 "
Coal Depot, Main street, Charlestown	Abbott & Downing	.....	10	1,760 "	1,800 "
Engine-house No. 3	.....	.....	10	1,620 "	2,000 "
Engine-house No. 29, Chestnut Hill avenue	J. T. Ryan	1870.	10	1,467 "	1 800 "
Hose-house No. 8, North Grove street	J. T. Ryan	1872.	8	1,675 "	1,280 "
Hook & Ladder No. 5, Fourth, near Dorchester street	J. T. Ryan	1873.	8	1,800 "	3,100 "
Engine-house No. 10, Mt. Vernon street	.....	1878.	8	1,200 "	800 "
Engine house No. 18, Harvard street, Dorchester District	J. T. Ryan	1871.	.....	1,780 "	2,000 "
Engine-house No. 21, Boston street, Dorchester District	J. T. Ryan	1872.	8	1,272 "	1,400 "
Engine-house No. 16, Temple street, Dorchester District	J. T. Ryan	1870.	8	1,146 "	1,200 "
Engine-house No. 28, Centre street, West Roxbury District	A. Dixon	1873.	6	1,120 "	1,200 "
Engine-house No. 13, Cabot street	J. T. Ryan	1870.	.....	1,745 "	1,500 "
Hose-house No. 8, North Grove street	.....	Jan. 3, 1878.	10	1,760 "	2,000 "
Hose-house No. 12, E. Fourth street, So. Boston	Abbott-Downing Co.	1883.			
Engine-house No. 24, Warren street	J. T. Ryan	April 13, 1883.	8	1,750 "	1,600 "
Engine-house No. 19, Norfolk street, Dorchester	.....	.....	4	720 "	500 "
Engine-house No. 20, Walnut street, Dorchester	.....	.....	.....	700 "	500 "
Engine-house No. 17, Meeting-House Hill	J. T. Ryan	1884.			
Engine-house No 23, Northampton street	.....	May 1, 1886.	.....	1,400 "	1,500 "
Engine-house No. 26, Mason street	J. T. Ryan	.....	8	1,690 "	1,280 "
Coal Depot, Shaving street.					
Engine-house No. 30, West Roxbury	Fire Department Shop	Feb. 16, 1887.	6	1,400 "	1,000 "
Engine-house No. 33	Abbott-Downing Co.	Feb. 20, 1888.	.....	1,675 "	1,280 "
Engine-house No. 12, Dudley street	Abbott-Downing Co.	Feb. 26, 1889.	8	720 "	500 "
Engine-house No. 34, Western avenue, Brighton	Abbott-Downing Co.	Nov. 1, 1888.	8	720 "	500 "
Engine-house No. 36	Abbott-Downing Co.	Sept. 24, 1890.	8		
Engine-house No. 37	.....	Sept. 15, 1890.			
Engine-house No. 14	.....	Sept. 20, 1890.			
Engine-house No. 38	Abbott-Downing Co.	May 15, 1891.	10	1,800 "	
Engine-house No. 40, E. Boston	.....	July 29, 1891.	10	1,800 "	
Engine-house No. 22, Dartmouth street	Abbott-Downing Co.	July 12, 1891.	8	720 "	
Engine-house No. 41	.....	.....	10	1,800 "	
Engine-house No. 42.					
Engine-house No. 43	Chas. Waugh	March 3, 1893.	10	1,800 "	

One new wagon, large.
One new wagon, small.

SALT-PUNGS.

District.	Location.	No.	Miscellaneous.
1	Engine-house 9	1	
2	Engine-houses 27, 36	2	District Chief's Pungs, 8.
3	Engine-house 8	1	Spare Pung, 1.
4	Engine-house 8	1	Caravan, 1.
5	Engine-house 26	1	
6	Engine-house 1	1	Wagons (Dist. Chief's), 11.
7	Engine-house 3	1	Wagons, Spare, 4.
7	Engine-house 22	1	
8	Engine-house 29	1	
8	Engine-house 13	1	Supply Wagons, 3.
8	Engine-house 14	1	
9	Ladder-house 4	1	
9	Engine-house 17	1	
9	Engine-house 12	1	
10	Engine-house 28	1	
10	Engine-house 18	1	
Spare	At Shop	4	
	Fire-Alarm Dept.	3	
	Engine-house 41	1	
	Engine-house 42	1	

REPORT OF COMMISSIONER JOHN R. MURPHY ON FOREIGN FIRE-SERVICE.

JULY 30, 1893.

To the Board of Fire Commissioners:

GENTLEMEN: In accordance with a vote passed by you, I submit the following report in reference to the fire departments and fire methods of the cities of London and Paris:

I spent two weeks inspecting London's fire department, most of the time, with the exception of one day, unofficially.

London has a population of about 4,250,000, and an area of 120 square miles. The Thames river, flowing through the city, although subject to considerable tide, makes a very valuable aid in case of fire. The streets are broad in the newer parts of the city. In the old city they are narrow. The buildings are so low and small in area that they do not present great difficulties in case of fire.

The water-service is supplied by some eight private companies which, by act of Parliament, furnish water for fire purposes.

The government of the city is complex. The old city of London, which comprises about a mile of territory, has a government of its own, with authority fixed by Parliament. The County Council, so called, governs the whole city (120 square miles) on certain questions of a metropolitan nature, under a special act of Parliament. In addition they have governing boards, which they call vestries, some forty in number, that look after the local affairs of sections which would correspond to wards in an American city. Questions such as streets, lights, local sewers, and such matters come under their care. The fire department being a general rather than a local question, comes under the London County Council, and is governed by that body through a committee in the same way as the American fire departments were managed twenty years ago.

The department consists of over 800 men, about 50 land steam fire-engines, 9 steam fire-engines on barges, used in river service, 9 large ladders, quite a number of hand-engines and hose-carts, most of which are in the same stations as the steam fire-engines, and 179 single ladders at fire-escape stations. The above includes men and apparatus in active service. These facts I obtained from one of the principal officers of the department, except that he said there were 155 fire-escape stations, while their annual report calls for 179.

The ladder service consists of the 179 ladders which are at the fire-escape stations, some 7 fire ladders, each of which has one end on two wheels and the other end tied on ordinary four-wheeled carts, and 2 extension American ladders. Some, if not all, of these ladders are placed in sheds in the rear of the stations, and are not equipped for immediate service. The houses in which the men and apparatus are quartered are in excellent condition, and compare more than favorably with the houses of an American department. Glazed brick, which costs with us from $120 to $130 per thousand, is used on the interior, and most of the houses that I personally inspected could be justly entitled luxurious in their appointments and appearance. The cost of their new fire stations alone averages about $40,000. As the price of building is low in London, that would be equal to from $60,000 to $80,000 with us.

The number of men attached to a company is 12. The fire-escape stations are covered by details from the nearest company. Most, if not all, of these fire-escape stations have each a detail at night of from one to three men. In the daytime the greater part of them have no firemen present, and the ladder is wheeled to one side in the nearest convenient place where it can be stored, generally the yard of some public building. The ladders are mounted on two wheels and stand upright from them. They appear to be about forty feet in length when extended, and are wheeled to the fire by hand. The public are supposed to assist if needed, and an allowance of 1s. is made to each of two citizens aiding, and of 1s. 6d. to a third citizen, provided he also gave the alarm. Most of these fire-escape stations have no connection with headquarters either by telephone or telegraph. In order to reach them a special messenger has to be sent.

In each engine-house they receive alarms from what they call 8 to 11 "points," or what we would call fire-boxes. The boxes are small, with a glass front. In most cases they are without any sign or any way of alarming the public, to prevent a false alarm being sent in. You break the glass, and a knob with "pull" on it is there for you to give the alarm. Pulling the knob drops a disk similar to an annunciator in the nearest engine-house.

The *modus operandi* at the station is as follows: Officer in charge is notified of an alarm by man on patrol, and he rings for the men. If at night, they are sleeping (in the houses that I examined) on the third and fourth stories, a hundred feet or more in the rear. They jump out of bed, pull on their trousers, and in their stocking feet run down long corridors, come down the long flights of stairs to the

floor (in some cases going to separate buildings for the horses from that where the engine is stationed), take off the halters, take down the harnesses, put them on, place the bits in the horses' mouths, run out holding them by the heads and hitch them up.

The water in the boiler of the engine is kept warm by gas conveyed to the fire-box by rubber hose. They unhitch the hose from the door of the fire-box, put in the shavings and wood, take a match and light it. The men go to racks upon the walls where their clothing is hanging, take their leather boots and pull them on, then put on their coats, buckle their belts, containing a small hatchet and other implements, round their bodies, place their helmets on their heads, and then take their positions on the apparatus. The engine is a hose-wagon and engine combined, so that when the engine comes to a fire it is in the form of one piece of apparatus. The time of hitching up in the house at night, I was informed, was from three to four minutes. I saw in the headquarters of the service a hitch-up made, with the men on the floor dressed, boots, helmets, all complete, with a hand-engine, where they had no trouble in the way of firing the boiler and harnessing the horses. This was practically what Americans would call a floor hitch, and the time was over 35 seconds. A floor hitch in an American house can be made under far less favorable circumstances in from 2 to 6 seconds; a night hitch, with the men in bed, in less than 20 seconds.

English methods of getting apparatus to work at a fire are so slow that one does not ask how many minutes it takes before a company is at work, but what portion of an hour. American departments can best understand their slowness when they call to mind the fact that in every American city that claims to have a first-class department, an alarm from its dangerous boxes means that a company will arrive there with its engine in working order, and get its men inside the building, playing water on the fire, in less time than a London engine takes to hitch up. After the apparatus leaves the house it goes with considerable speed to the fire. Before leaving the house, however, the officer telephones the superintendent of the district, corresponding to the district chief with us, where he is going, and the superintendent telephones to have a second engine from his district follow the first. When the engines arrive at the fire, if more are wanted, a man is sent on horseback to the nearest fire station, which may be a mile away, and he telephones to the district superintendent how many more engines are wanted, and more engines are sent from time to time, as called for

by telephone, each time the man going back on horseback to convey the order of his superior officer. If the fire is of such magnitude as to exhaust the engines of one district, then headquarters, when telephoned, sends more from the next district, and so on until the engines of the whole city are at the fire.

Some of the engines have the doors of the fire-boxes in the front part of the boiler, so that the engineman cannot reach them when responding to an alarm. Fully one-half, I should judge, of the entire London service is this way. The result is that, after they leave the house, it is impossible to feed the fire and get up steam on the way, and the engine, if going any distance, would, under these circumstances, arrive frequently at the fire without being in a condition to get to work immediately.

The hand-engines are sent to alarms of fire from the nearest boxes to the engine station. To boxes at a distance, or when it is known that there is a fire in progress, steam-engines are sent.

When the engine arrives at a fire it is attached to a hydrant in the following way: a pipe about two inches in diameter is screwed on to the hydrant, a piece of hose is screwed on to that and run into what they call a fire-dam or canvas box, which has to be set up. The water is let into the canvas box, and from this the engine runs its suction and draws its supply of water. At the fires I attended, one hydrant and one canvas box supplied one engine. In the meantime some of the men take the hose, which is in separate lengths and rolled up like a coil of ribbon. One man couples a length to the engine and runs with the end, then another man runs with a coil and couples it on to that and runs with it toward the fire, then the first comes with another coil and couples it on. This peculiar way of running a line is kept up until the requisite length of hose to reach the fire is obtained. The pipe is then screwed on, and, if the engine has sufficient steam, the company is ready for action.

The hose couplings are two inches, the streams played from hydrants a half-inch, and the streams played by engines on land three-quarter inch. I was informed that they also used inch streams, but I did not see any nozzles of that size on the engines, neither did I see any in use at any of the fires I attended. Before an engine can get its supply of water it very often has to be turned on by an employee of the water service. If he is not there, he is either sent for or the firemen have appliances with which to turn it on.

The smallness of the engines especially struck me. All their engines are single pump with small boilers, and a very few of them, about six, deliver a gallon and a half per

stroke. The balance is divided between engines that deliver about a gallon and a gallon and a quarter. They are tested when purchased on the basis of 150 revolutions per minute, and their maximum and minimum according to the condition and age of the steamer is 120 and 90 revolutions. On the basis of 120 revolutions the maximum capacity of their engines is 120, 150, and 180 gallons per minute respectively.

If ladders are needed at a fire they have to depend upon the small ladder carried by the steamer, which would not reach some of our second stories, or the ladder which comes from the fire-patrol station if the alarm was given from there. If more are needed they have to send to the nearest station a special messenger and have them come by hand. If the longer ladders are wanted they are brought by horses.

In one of the engine stations I saw the method of conveying one of their long ladders. One end of the ladder is on two wheels, the other end is tied on a four-wheeled team which they call a van. If needed at a fire it is called by telephone, and the engine-horses are hitched to the van and they draw it there. I said to the man on duty, "If your horses draw this ladder to a fire, and the engine is wanted, what do you do?" He said, "We can't take it; we would have to fall back on a hand-hose cart." In other words, the ladders are brought to fires by hand, except the nine large ones, which are brought by horses when specially sent for by messenger.

What they call a large ladder is about equal to one of our Bangor ladders, which we carry on our ladder trucks. Their way of carrying large ladders, while not quite so difficult as the carrying of ship-masts through the streets, is almost as cumbersome. It is impossible to convey the London ladders with that celerity which is essential in case of fire.

The men of the London brigade are recruited from sailors. Twenty or thirty years ago, before the ocean steamship developed to such an extent, there might have been more grounds for this than there are to-day. Sailors on steamships are not sailors of the generations that have passed, and while it may be good judgment to have a proportion of the service sailors, it is not, in my opinion, good policy to have it so exclusively. The fireman in a modern city should not only have ability to climb, to handle ropes, as the old-time sailor, but should combine with that a mechanical ability which would make him familiar with buildings and their construction, and, as a climax, he should be possessed of the requisite daring and judgment to make of him what may be justly called a modern fireman. The men of the

London service struck me as being strong, rugged, and possessed of most of the requisites which make a fireman, but, by training, they have no knowledge of building construction. This is an essential weakness. The physical and mental examinations which they go through are not so stringent as in Boston; neither is their drill-school so well developed in its methods.

The pay is 24s. ($5.76) a week when they first enter, with slight increases for the first few years. After that, in order to reach the maximum of pay, 37s. 6d. ($9) a week, they have to await vacancies and take the raise of pay in the order of seniority. It takes about fourteen years to reach the highest grade, and a fireman must serve twenty-eight years before he is entitled to a pension. Out of his salary the fireman pays a small sum for his quarters in the engine-house.

A curious fact connected with the service is the large number of changes that take place yearly. In the last year 96 men out of a total of 825 left the service, and of this number 53 resigned. There is but one deduction from this extraordinary state of affairs, and it is that it comes either because of the peculiar roving disposition of the sailors that compose the service, or the small pay and the long service necessary in order to obtain the high pay. A service which changes like this cannot get the best results. It must be lacking in well-trained and experienced men.

The engines of the service are too small in their capacity. While they meet the ordinary demands, when an extraordinary demand comes they are not sufficiently large in water-throwing capacity. It is pretty much the same as though an army had all light guns and none of heavy calibre. The reason given for the use of such engines is a desire to get quickly to a fire. Yet in their hitching and going to a fire they lose many minutes. In their methods after getting to a fire there is so much time wasted that it strikes an American very unfavorably.

This extreme smallness of engines is all the more remarkable when I saw engines of English make, of double the capacity, and even more, of the London engine, on exhibition by makers and in service in other English cities, the weight of which was not much greater than that of the London brigade engines. London should send most of the engines that she has now to the outskirts, and in the five or six congested centres of that great city use engines of large water-throwing capacity and light in weight.

The horses of the service are splendid animals. This is to be expected in a horse country like England. They are hired, not owned, by the service.

The water service seemed to me to be sadly lacking in many respects. It should be owned by the people for the public benefit, not by private corporations for private gain. The system, to say the least, is peculiar. In many parts of London they have what they call "intermittent supplies;" that is, the water is let on at a certain hour in the morning. For domestic purposes people fill the tanks in their houses, and then the water is shut off. The same rule of shutting off, except when needed, applies to water for fire service, and cases have occurred where engines have responded to fires and have been unable to get water, owing to the fact that the man to turn on the water was not present. A system of this kind means, even if the water is turned on either by a representative of the water department or a fireman, delays of a dangerous nature. The hydrants are used also by men who are not connected with the water department. The use of them should be restricted under the supervision of the fire service and the water companies. The smallness of the hydrants, which furnish only about a two-inch water supply, struck me unfavorably. The number of hydrants, when we consider the area of the city and its population and the fact that one engine alone can connect to a hydrant, is extraordinarily small, and the result is that the engines cannot be massed sufficiently close to a fire to render full and efficient service. Their hydrants should be more numerous, and, like ours, post hydrants or their equivalent, so that four engines could be supplied from a hydrant instead of one. The canvas box should be done away with, and the engine suction connected direct to hydrant.

The hose is without jacket and lined with white rubber, which rubber dealers tell us is the weakest kind. The couplings are fastened by an old process long obsolete in America. Instead of using 2-inch couplings they should use at least 2½-inch, if not larger, and increase the size of their hose. Their method of running off a line of hose at a fire by coupling each piece after they arrive there, is behind the times. They should have their line all ready to pull off at a moment's notice, and all coupled, just as it is in an American service. Their system of combining hose and engine in one piece of apparatus could be, perhaps, economically used in the suburban parts of an American city, but in the heart of their city, as well as in Boston, the correct system is the engine and hose to be carried on separate pieces of apparatus. The size of their streams is too small for large fires. Their hand-engines are relics of barbarism. They do not use chemical engines as in America, yet they need them far more than we do.

Their fire-alarm boxes should all have signs telling how to work them, and when the glass is broken a bell should ring, as on our keyless doors. I think that would prevent many false alarms. Out of about 4,164 alarms of fire in one year, 1,029 were false — an extraordinary record, which can only be accounted for in part by the fact that in giving an alarm there is no way of notifying the police or public when a citizen is sending it in.

Their system of sending apparatus to the fire is slow and complex. It is impossible for them to mass their service quickly in case of great need, either wholly or in part. The American system, which makes it possible to notify the whole service within a few minutes, if necessary, is as superior to theirs as day is to night.

Their fire-escape stations with the men on duty at night should be covered in the day also, and so situated that all could be communicated with at once and notified other than by messenger if they are wanted. Either this should be done or the peculiar system as it now exists, which fritters away the strength of the department on unconnected bodies of men, should be abolished. If this is army discipline, it is a violation of the rules of warfare, which never allow, where it is possible to prevent, any portion of the army to have its communication cut off from the main body, its base of supplies.

Fires sometimes are large and travel fast in London, and the occasion has arisen, and will arise again, when the services of all her men will be needed quickly; yet it is impossible, under the present system, to obtain the whole service at once if wanted.

The average number of boxes per square mile in London is about four, so that, in order to give an alarm, it is necessary, in many cases, to run a long distance. Boston, with one-ninth the population, and a little over one-fourth the area, has as many fire-alarm boxes in service as has London. The boxes should be thicker in London, owing to the density of its population, and people should not be compelled to run so far in order to send in an alarm, and thus lose valuable time.

I investigated the question of patrolling the streets, and I found that the London brigade do no such thing. Statements have been publicly made in Boston that in London every fireman would be required to be familiar with every building in his district. This is not the fact. The firemen know nothing about the buildings; neither do their officers. In this respect the London service could take pattern from an American department, where, in accordance with rules which

they reduce to practice, the officers do understand, as far as in a human being lies, the construction of the buildings in their city. It is only fair, however, to say of the London service that their building construction is, in the main, of such a nature that the enforcement of a rule of that kind is not so necessary as it is in Boston.

The ladder service of the London brigade is not abreast of their steamer service. It is true that their fires, owing to good construction, in many cases do not travel fast. This gives many chances to put them out by inside fighting. Yet they have plenty of fires where it is necessary to get at the fire by ladders from the outside, and as their fire ladders are not run by horses, valuable time is frequently lost in scientifically attacking the fire. In conversation with fire authorities in London, I was informed that they could accomplish all they desired from the ground. A statement of this kind shows the utter lack of knowledge of ladder service possessed by foreign fire departments. London needs a first-class ladder service. Because of the lowness of its buildings there is not so much necessity for the heavy service of an American city; yet one modelled on the American principle, which embraces separate companies with ladders and apparatus for ladder duty only, and with the men and apparatus drawn by horses to fires, would increase to a wonderful extent the efficiency of the London brigade.

One hears a great deal more about saving life than about the amount of property lost in foreign fire services. A life saved receives more attention in the columns of the press than a fire that involves large loss. It is a feeling that is to be admired. I gave special attention to this branch of the service. I found in London 179 ladder fire-escape stations to 120 square miles of territory, or over one ladder to the square mile. In case a ladder was needed, that would make it necessary at times to run a mile or over to notify the fire-escape station, and then to have the ladder run back by hand all that distance. This is a vital error. The ladders should be situated so as to be called electrically, and thus save an enormous waste of time. Many of the ladders are equipped with a chute, down which the people to be saved are supposed to be sent. I question the usefulness of these chutes. It requires more men to handle them quickly than are attached to the ladders. I noticed that some of the latest ladders placed in service were without these chutes, and, on inquiry, was informed that none of the new ladders were equipped with them. Possibly the service of chutes is being done away with. If they are, it is good judgment.

For jumping-nets they have some made of canvas, such

as the American fire departments have discarded. The pompier ladder service and the use of ropes in connection with life-belts, for saving life, as practised in our Boston service, is unknown, although very essential in case of emergency. I saw no guns for shooting life-lines; neither are the men drilled after the American life-saving system. I have no hesitation in saying that the American ladder service, both for fire and for life-saving, is immeasurably superior to the system in vogue in London.

I was present at some fires in London and saw the department at work. The crowds congregate around the engines close to the fire more so than in an American city. I watched the methods of the department and failed to see, either in discipline or so-called scientific fire-fighting, where they equal the fire department of a large American city.

Siamesing is not practised to any extent. They have some simple two-way siamese, but I did not see them in actual work. They try to reach the inside of a building at a fire, the same as our firemen. They also attack from the street at various points; but, unlike our firemen, they are not able, by means of an excellent ladder service, water-towers, engines with large streams and three-way and four-way siamese, to direct their streams of water so as to go straight in in heavy volumes through the windows and openings, and strike at the heart of the fire. Streams directed from the street must necessarily lose much of their efficiency when they enter in a slanting direction.

It would appear that the London department does not bother itself very much about science, for I was informed that they had lately tried hose unlined, which, for actual fire duty, is little better than no hose at all. All the fire departments from other cities outside of London that I met, without an exception, use hose unlined, which shows that scientific fire-fighting does not enter largely into the English fire departments.

Regarding the discipline of the London service, there is nothing to make it superior in this respect to an American service. It may compare favorably, and no more. As in any large body of men, whether a fire service or an army, black sheep can be found, and men will take their chances of being caught in violation of the rules. A soldier on guard in the face of an enemy will desert his post for a short time, even when he knows the penalty is death. London has her share of delinquents.

I saw many things which, accustomed to the strictness of an American service, surprised me in London. I suppose they are allowable according to their rules. In some of the

houses I saw the captain standing at the door on the main floor of the house, partly in uniform, smoking a pipe, with the men in groups lounging around doing the same. Sometimes little children of two or three years of age would be seen playing around the engine. A happy family picture, yet hardly in accordance with strict discipline. I spoke to one of the members of the service in regard to this particular fact, and he seemed to take it as a matter of course. His reply was, "Why shouldn't we do it? The engine-house is our home." I believe that, in the matter of discipline, more is demanded and received in an American department than in an English service.

The system of utilizing the Thames river for fire-fighting purposes is by having engines on barges, and towing the barges with steam-tugs. It is not so good as the American system of having steamer and tug combined in what we call a fireboat. Such good results are not obtainable either in quick manœuvring or general efficiency at a fire.

London needs sliding-poles for its engine-houses, hanging harnesses, horses educated to run out at an alarm, an electrical system of sending in alarms which notify the whole service, two ways of sending them out, as in America, so that if one misses the second will not; an increased number of men in her companies, as, owing to details, a company frequently goes to a fire with only a few men. In short, she should adopt American fire-department methods more fully than she has.

From England we can learn much in the way of prevention of fires. In London, Liverpool, and in other large English cities which I visited, I saw no poles or electric wires of any kind in the streets. Everything was underground, and this is a remarkable evidence of the commonsense of the people, when we consider that in London alone over 40 different local governments have charge of the streets in matters of this kind. Their reasons for not allowing wires or poles on the streets are: First, danger from fire; next, because it spoiled the beauty of the streets. Quite a number of wires are run over the house-tops, not as with us on heavy, wooden, inflammable structures, but on small iron posts with cross-arms of the same metal, some of them carrying more than a hundred wires. The wires underground are in many cases laid in shallow iron trenches, placed under the sidewalk about a foot below the surface, and the results from having the wires underground have been successful in the extreme. Seven years ago, during a storm, the wires of the whole London fire service were blown down, and they were without any fire alarm for some time. Immediately after

that the post-office authorities allowed the fire department the use of their underground wires, and the result has been little or no expense in their maintenance and far better results in service. Before the London County Council the question of subways for the general use of underground wires of all kinds is under consideration, and subways are partly in use, from which the city receives rent.

The number of police on duty in London as compared with Boston is very large, and is an excellent provision, not only from a police, but from a fire, standpoint. In old London, about a square mile in territory, there are a thousand police; that is, more on duty in one mile than in the whole of Boston — 37½ square miles. The balance of the city, together with portions of the country, including territory 15 miles each side of Charing Cross as a centre, is covered by the metropolitan police, 15,000 to 16,000 in number. They come under the jurisdiction of the Home Secretary. A small portion of the metropolitan police look after the dockyards at Chatham and elsewhere.

The benefit to be derived from their system of a numerous police service is that the streets are thoroughly patrolled, and if the police do their duty the chances of a fire being discovered in its earlier stages are greater with a large number of police than with a small number. Of course, a fire may be burning in a building at night for a considerable length of time, and the smoke be drawn up by way of the roof through elevator shafts or other openings, and not be discovered even by the utmost vigilance of the police service until the building is all afire. These conditions exist in London, but in a modified form as compared with an American city. There is no doubt that the thorough patrolling of a city, especially at night, prevents large fires by giving early alarms. Boston, which, like every other American city, needs to have its fires discovered and the department notified at once, is behind London in this respect.

One never ceases admiring the building construction of London from a fire standpoint. Wooden buildings are unknown, and wood enters into the interior construction to a small degree as compared with our American buildings. The roofs are of tile, slate, or metal, and are so constructed as to be easy of access from one building to another. Shingle and inflammable roofs such as we have would be a curiosity.

Elevators are not used largely, neither are boilers for the purpose of giving steam-heat. The result is that the buildings are not cut up with elevator-shafts and openings for running steam-pipes; neither are the insides of the buildings

in winter, by the use of steam, dried in such a way by excessive heat as to make them easy food for fire. How different is it in all these particulars in America! High buildings make elevators necessary; the excessive cold of winter necessitates the use of steam-heat and fire of all kinds to such a degree that the interior of the buildings, being mostly of wood, are dried; and as we lack that moisture and evenness of climate which seem to be a feature of London, our liabilities to fire are greater than theirs, even if we were on equal terms with them in building construction.

I talked with insurance men, and, in speaking of the merits of an American city and London from a fire standpoint, they said it was a mere matter of construction. The buildings are low and small in area, and the monumental effects which we get in some of our buildings are unknown. The only criticism I heard of the London buildings was from a member of the fire department, who, speaking of some late construction, — steel beams, tiling, and brick, — called it dangerous. Buildings of that kind pass with us for fire-proof.

During the last fifty years London has increased in population and size in a way that reminds one very much of an American city. Authorities ascribe this to the fact that, instead of land being leased, many holders have been selling it outright. The result is that people desirous of owning their land and houses have come in large numbers and settled in London.

Even if London had a building law only for the last fifty years, it would be to-day a city of excellent construction; but the building law runs back to the days of King Charles, and the result is a perfect city so far as buildings are concerned.

The causes of large fires in American cities are high buildings on narrow streets with large floor areas, built partially of wood. London is not troubled with buildings of this kind, even of a fire-proof construction, because as far back as 1855, and probably even earlier, the building act passed by Parliament had this clause:

"Every warehouse or other building used either wholly or in part for the purposes of trade or manufacture, containing more than 216,000 cubic feet, shall be divided by party walls in such manner that the contents of each division thereof shall not exceed the above-mentioned number of cubic feet." [1]

[1] The building law as amended in 1890, however, somewhat changed the provisions of this clause, and allowed 450,000 cubic feet to a building, by special vote of the county council, provided it is used for one business not of an inflammable nature. Openings are allowed in the party walls also under certain restrictions.

This would allow a building to be built 60 feet front, 60 feet deep, and 60 feet high. In other words, a building of this kind would contain three floors of only 3,600 square feet to a floor, provided each story was 20 feet high. If a person desired a building of larger floor area than this, he would be compelled to build a less number of stories, or if he wanted more stories he would have to build them less than 20 feet high.

With 3,600 square feet to a floor, buildings perfect in construction, no wood to speak of, the chances of large fires are small in the extreme. Contrast this with the large inflammable buildings which we have, many of them running over 50,000 square feet to the floor, with six or seven stories of equal area loaded with inflammable goods, and you have the easy task which lies before the London fireman, and the herculean task which faces the American fireman.

The largest store of its kind in London is Whiteley's, a large retail dry-goods house. Instead of having large open floors, acres in area, it is divided into numerous low and small buildings, averaging less than 1,000 feet in area to a floor, each building divided by brick walls of great thickness, and with double iron doors where openings are made from one store to another. Its lowness (a characteristic of the London building), the thick brick walls dividing it, the small areas of floor, and the sample-like appearance of its stock, would make it an easy building to handle in case of fire by an American department; yet it has had numerous costly fires, even from an American standpoint.

I noticed one other thing which shows the good business judgment of the mercantile community of London. This is a tendency to divide a large business into separate departments, using one building for storage purposes, another for manufacturing purposes, and a third for showing the stock for sale. The tendency in an American city for using a building not only for sale purposes, but for storage and manufacturing, is not general in London. The result is a decrease in the fire hazard.

Another important practice of theirs is that of not having large windows in their buildings. Their buildings do not present so much glass area in the front and sides as with us. When a fire occurs it is easier to confine it within the building, as the small windows do not present such opportunities for large volumes of flame escaping and setting fire to buildings on the other side of the street.

I have been at some pains to look into the question of the extension of fires in London from one building to another. Of the fires occurring while I was there, quite a proportion

were large, and extended to buildings other than that where the fire originated. Three days after I sailed, on July 18, a fire occurred which involved 50 buildings, 40 of which were destroyed and 10 partially so. The loss according to the newspapers was $7,500,000 — an enormous amount from a London standpoint. The section where this fire occurred I had been through several times. It is in the heart of the city, close to the Mansion House and to the Bank of England. The buildings were low, well constructed, and small in area, and the only difficulty that they presented was the fact that they were partially stored with goods of an inflammable nature. The only way that I can account for such a disastrous and extensive fire occurring in the heart of London among such small buildings is the fact that it was allowed to get great headway, owing to un-American methods of the London service. They are apt to place too much reliance on their building construction, and the slow burning of their fires. The fire service of London, excellent though it may be in many ways, is modelled with the idea of putting out most of the fires that occur, but it is not able to cope with large fires. What we want is their building construction, and what they want is our fire-department methods. There is some excuse for us because of the newness of our country, the rapid growth of our cities, and the fact that our age of wood is not a thing of the past. For London, the capital of a great country, the mechanical ability of whose people is unquestioned, whose common sense is shown in many ways that go to prevent fires, there is no excuse for its not adopting American fire-fighting methods.

It might not be out of place for me to say that I am on record while in London as giving my opinion of the London brigade to a prominent officer of a large insurance company. It was as follows: "That the department had not enough men, its apparatus was not heavy enough to cope with large fires, and that, although they had been more or less fortunate for some time past, yet, even in London, admirably though it was built, there were opportunities which might arise at any moment, and the service would not be able to cope with the crisis." I am free to admit that I do not believe my opinion had much weight at that time, for it is to the credit of London citizens that their service stands high in their estimation; yet my judgment was borne out in fact after my departure by the results of the fire which I have quoted above. The chances for large fires are not so numerous in London, because of construction, as they are with us; yet, because of their service, which is modelled for fighting small fires, there are many opportunities. The changes in

business methods in America have increased our fire risk enormously in twenty years, and even in conservative London they have made the conditions different from what they were twenty and thirty years ago. It seems to me as if the authorities there had not realized this fact.

I was at a considerable disadvantage in Paris owing to my small knowledge of French, and at times it was necessary to pursue my inquiries through an interpreter.

The area of the city is about 30 square miles and the population 2,500,000. It has beautiful squares and streets of more than average width. This is owing mainly to the relaying out of the city some years ago. The water service is good for a continental city, the engines connecting directly with the hydrants. The buildings, although tall, are small in area.

The fire department consists of over 1,700 men of the French army under the usual officers, — colonel, majors, captains, etc. The men are young, but not as powerful-looking as those in an American service. Every three years the rank and file practically change, owing to the expiration of the army service term. They have a system, I was informed, which allows men to serve longer if they desire, and in this way, as the service is considered easy, they manage to keep many men of experience.

I inspected their drill school. In a modified form it resembles an American school, yet it is not of so high a grade or so far-reaching in results as one of ours.

They have about 12 fire stations or barracks in the whole of Paris. Connected with these or close by are the fire-houses, some of which are modelled on the American plan, with sliding poles, hanging harnesses, all complete, as introduced by them some few years since.

The engines have double pumps some 12 or 14 in number, with a capacity of from 300 to 400 gallons a minute. They are excellent in their construction.

The hose is carried on reels attached to wagons, and in the barracks, in addition, they have ladders stored which are drawn to fires by horses. They use hand-pumps and other small appliances to a great extent. Their large ladders are about fifty feet in length when extended; some of them may be a little longer. A few men can handle them, but their methods are slow and complicated. The construction of the ladders, and the method of throwing them, render it impossible to place them in position at a fire with celerity.

I looked in vain for pompier ladders. It is a popular belief on our side of the Atlantic that the American pompier

ladder had its origin in France. If such is the fact, strange to say, the French people know nothing about them. They have a short ladder of the regular style, with a long hook on each side, which they use to scale with from one balcony to another. Their buildings are constructed in that way. This may have given the idea to America; but America has so improved upon it that even its originators would not recognize it.

The use of ropes, life-belts, etc., as practised in American departments, is unknown in Paris. Speaking of the American method of using ropes in saving life, as shown at the congress of firemen in London, a captain of the Paris department expressed to me the greatest surprise at the ability shown by the American fireman. The rope drill, as practised by us, is utterly unknown either in England or France.

Siamese streams are not used in Paris. Once they had the appliances, but they claim they found no use for them.

The American system of shut-off nozzles, and all those modern ideas of fire-fighting, which, in the aggregate, do so much to make a service efficient, I failed to find in either London or Paris.

The hose used principally in Paris — and in this respect it is behind London — looks like a linen fabric unlined. They use some small lined hose, but I saw very little of it.

Paris, like London, has no wires or poles on its streets to interfere with the proper working of its department at fires. There are some overhead wires, but these are carried in the least objectionable way to the firemen — on structures over the roofs of the buildings.

There are but few fire-alarm boxes in Paris. These are small, with glass fronts, placed in a way that makes them hard to find. In addition, they have over a hundred stations scattered over the city, where they have small appliances and a few men. No outsider is allowed to enter the barracks of the Paris department without the consent of the commanding officer. After getting a written permit from the colonel in charge, I was shown the operations of the department by a captain in the service. I asked to be taken to one of these small outlying stations, and he said that there was nothing to see there, that they were doing away with them.

They are putting in a new fire-alarm system which consists of short posts, each about four feet high, on top of which is a square iron box with a glass front. The idea conveyed by the sign attached to it is that the citizen giving the alarm must wait until the apparatus responds.

In these boxes are telephones which, on breaking the glass, allow citizens to send in an alarm of fire. The sup-

position is that by this means they are able to get more detailed information of what is wanted. As far as I could find out, it was a peculiar kind of telephone, which would not allow the fire headquarters to talk back to the party giving the alarm. They could make a signal which would notify that an alarm had been received all right, and that is all. If such is the case, it seems to me that if this telephone system is to be used at all, it should be of such a nature as to admit of conversation backward and forward between the party giving the alarm and the party receiving it. As fast as these boxes are placed in service, the stations, whose places they take, are abolished. The eventual result of this system, if carried out, will be that Paris will have a large number of telephone stations from which to send in alarms of fire. The system, though not perfect, is yet worthy of consideration. In my supplementary report I shall give a more detailed account of it.

A difficulty in all great cities, which we have felt first in America, is that of numerous fires occurring at one and the same time. London and Paris have been trying to cope with this difficulty, but the methods which they follow are not such as meet the case. The time is not far distant when London and Paris will be compelled to follow our example.

When an alarm is received in a Paris station it is sent out in a manner somewhat similar to that of the London department. They have the same circumlocution in receiving the alarm and notifying the various district headquarters and in sending back for more help by messengers. The same criticism can also be made of their service as of the London, viz., the impossibility of centralizing it at a moment's notice and using all the men and apparatus if needed. It is a peculiar fact, yet true, that, although the French have many American appliances for quick hitching and getting their apparatus to a fire, while they connect directly with the hydrant and have their hose joined together ready for use, they fail in many ways. Their horses are not trained to run out to the harnesses, the halters have to be unhitched, and the men lead the horses out by hand. The engines have no method of keeping on steam while in quarters, and they do not make ready for use until after they arrive at a fire. There is an absence of that snap and vigor which characterize an American service. It strikes me that the men are in the same position that we would be in if new and strange machinery was imported into one of our large mills and we had no men who were familiar with its operation. It would be necessary for us to import skilled labor from the country whence the machine came or wait until the intelligence of

the American mechanic found out the secret. What they need in Paris, in addition to copying our ways and methods, is the ability to utilize them to the best advantage.

When the Paris apparatus goes to a fire, it is in no great hurry. On arriving the men run off a line of unlined hose which looks to be 3½ to 4 inches in diameter. At the end of this large hose they have a brass cap which they screw on, and from this run small lines of hose, a trifle larger than ordinary garden hose. They can use two lines, possibly more, in this way from one large line of hose. Some of the small hose is rubber and some of it linen unlined, and with this kind of hose they fight a fire. The size of their engine streams varies from five-eighths of an inch to one inch. As they use unlined hose, with its faulty delivery and tendency to leak, and as the couplings are somewhat on the key-clutch principle, they cannot get efficient water-streams. In America we are particular in the extreme not to allow hose to leak when carried through buildings, yet in Paris they seem to think nothing of this particular point.

Fires very seldom extend beyond the room in which they originate, and the cases are rare in which it gets from one building to another. I was present at a small fire which took place in the basement of a hotel, with small stores in the lower story, and on the stories above were suites for tenants. It was curious to see the people looking down from the windows above at the firemen at work in the basement, apparently not in the least disturbed. They could do it with impunity, for the buildings are not built to burn. The firemen had an arrangement similar to an air-pump which supplies a diver with air, and were working it to furnish air to those who were in the cellar below. The smoke that came out from the cellar did not amount to anything in volume, and for about half an hour the apparatus and the men stood around there, and finally, when the fire seemed to be all out, a man came out who had over his head a diver's helmet made out of light metal. He evidently was the one who was in the thick of the smoke and to whom the air was being pumped. After him came more firemen, and in their hands they had the cause of the fire, about a bushel-basketful of excelsior, part of which was burned.

My stay in Paris was a little over a week, and during that time I saw considerable of the fire service. The arrangement for furnishing air to those in cellars, such as they had on their apparatus, struck me as being too heavy for a man, especially in some cellars such as we have. The idea impressed me as excellent, and possibly might be

used in American cities in cellar fires which did not travel fast.

On all their apparatus the French carry oxygen for the purpose of reviving those who may have been affected by smoke. Here again is an excellent idea, but of its practicability a medical man would be best able to express an opinion.

In their methods and as scientific fire-fighters, the French are somewhat like the English. Neither London nor Paris has had the daily practical experience that the American fireman has. We have learned the trade scientifically from daily combat with fires, unequalled in their fierceness and danger the world over, because of the construction of our cities. It is not science to use the hose they do, and it is not science to have a body of supposed trained men looking after the fire interests of a great city like Paris change so constantly. The trained, scientific fireman comes only with long years of practical experience. In this, both London and Paris seem to be sadly wanting.

The buildings of Paris are better than those of London. Although higher, they are so arranged that all the rooms appear to have windows opening out of doors, and they are erected around interior courtyards. These courtyards, together with many open spaces and broad streets, allow the fire department to reach fires easily and quickly.

The officers and men of the Paris department, like those of London, know nothing about the construction of buildings, neither do they make inspection of them, nor are they by rule compelled to have a knowledge of their interior or exterior construction. The London service is under civilians, and some people may give that as a reason for its action, but the Paris service is military, and so much is claimed for the military, that it is a strange comment that this most essential thing in fire-fighting, viz., that the officers at least should inspect and know their buildings, is completely ignored in Paris. They have plans on file at the headquarters of the public buildings and of theatres, and this is the nearest they come to paying any attention to building construction. I asked an officer how they found their way in a building on fire, and he replied that the owner or somebody round there showed them.

Paris uses the army for a fire department, in my opinion, first, because of its cheapness; lastly, in order that so large a body of men may come under the jurisdiction of the national government, not the municipality of Paris. The police come under the national government for the same reason.

The life-saving appliances in Paris, from my limited examination, can bear no comparison with those of an American city. They are not even abreast of the London service; in fact, the engine and fire appliances of Paris would hardly be large enough in number for an American city of 100,000 population, and would not be for Paris, were it not for the wonderful building construction.

In my opinion, it would be well for us to consider the question of a heavier system of policing and patrolling on the part of the fire department in the extreme hazardous sections of Boston. If foreign cities find it beneficial, why not Boston?

In the engines which I saw in England, outside of London, the idea of having three pumps seemed to me to be an improvement on the average two-pump engines. In Paris, they have in service boilers on their engines of a water tubular pattern. Attached to the boilers is a light condenser to exhaust the steam back into the boiler, or they can exhaust into the air.

It might be possible for an engine to be built with three pumps instead of two, and by adopting the system of water tubular boilers, get better results than we receive from our engines. The gain from an engine of this kind would be economy in the use of fuel, lightness in weight, and large water-throwing capacity.

Water tubular boilers, I understand, have been tried in England in connection with fire-engines, and it is claimed that they are a success. We might submit the question as to the feasibility of this proposition to the engineer of the city of Boston. In this connection it would be advisable also to have a scientific test made by him of the number of gallons per minute the engines of the Boston fire department are able to throw on a fire, not alone in theory, but in actual, practical work. The result of this test would best show the wisdom of trying this new system of engine. In connection with this test, the principles of getting the best results from two-way, three-way, and four-way siamese streams could be obtained; in fact, the whole question of water delivery could be investigated, especially the subject of a lighter substitute for the present heavy suction used in connecting an engine to the hydrant.

There is no doubt that the great danger of Boston in the future is from the faulty construction of the past. It is essential that not only the officers, as is now the case, should have a thorough knowledge of construction of buildings, but that as far as possible it should extend to the men. Our patrol system makes it possible for a man to know the con-

ditions that surround buildings on the outside. By allowing them access to maps it is possible for them, in theory, to obtain a knowledge of their inside construction. It seems to me that when promotions occur hereafter, it would be advisable to embody as part of the subjects in which the men should be examined, their knowledge of the results obtained from water, as developed by the tests which I have suggested, and also their knowledge of the outside and inside construction of buildings in the district where they have done duty.

I noticed in Paris, in some of the large buildings which I personally examined, there were men attached to the store, who were formerly members of the Paris brigade. Their duty, I was informed, was to patrol all the floors of the building, and see that the goods were so placed, and everything carried on in such a manner, that the danger from fire was minimized. This is an idea that can be enlarged upon here in Boston. In each of our large establishments that are considered hazardous, a fire department can be formed out of the employees, and the organization be made under the supervision of an officer of our fire service. To get the best results from such an organization, it should be inspected at stated intervals by a fire official. This inspection should extend to the fire appliances of the building.

I have examined the building laws of Paris and London, as well as the laws governing explosives and petroleum, also their system of inspection, and other matters of importance, and will submit, as soon as possible, a separate report upon those subjects.

SUPPLEMENTARY REPORT.

There is no way of ascertaining the actual fire losses on property in London. The fire brigade keeps no record. They say that it is not their business to do so. Unlike us, they give no attention to this point.

It is also absolutely impossible to obtain exact figures of the losses of insurance companies, for any year or series of years. It is the custom of every company (with some exceptions) to publish full particulars of its receipts and loss payments as a whole, at home and abroad. But no company thinks to make public its experiences in any London district. The reason for this is, that if the experience be an adverse one, the company can quietly curtail its operations in that district; and if favorable, it can continue to make a profit without attracting too much attention. The correct figures, doubtless, are in the hands of some insurance managers, but they do not make them public.

London is divided for insurance purposes by each company into practically three sections: the West End, for good residential property; the city, for large wholesale and retail warehouses, and storage risks; and the East End, for manufacturing and residential risks.

The residential insurances are on a good paying basis. Although the rates vary from $\frac{1}{6}$ per cent. to 2 per cent., the loss ratio of the larger companies fluctuate between 5 and 15 per cent. of the gross premium income of these West End branches. This statement applies to three of the principal insurance companies of London. Separate figures for the East End and city cannot be obtained, but the combined percentage for London is estimated as follows:

During the last ten years the percentage of losses has fluctuated between 40 and 60 per cent. of the premiums. The loss for last year is estimated as not exceeding 50 per cent., and it varies from about 25 per cent. in one company to about 70 per cent. in two other prominent companies. This is based on the judgment of authorities. It is not too much to estimate 50 per cent. of the premiums as the loss.

This is about the same showing on insurance profits as that made by the Boston insurance companies during the last ten years, with this difference, that the insurance rates are at least twice as high in Boston as they are in London.

The yearly premium receipts for the London district in detail it was impossible for me to obtain, but it may be calculated on a basis of $\frac{3}{6}$ per cent. on the total insurance of the companies, based upon their contribution to the support of the London brigade. This would be about £1,432,000. The insurance companies are desirous of making as large a profit as possible in London, because the business there is usually reckoned to cover deficits in what they call the provinces and abroad. The business of the fire offices for the country and abroad shows a total loss of 13,000,000 on a premium income of 19,000,000.

The insurance commissions paid to agents are reckoned at about 16 per cent. The expenses of management, it is claimed, are 18 per cent.

According to the annual report of the London Salvage Corps, which is supported by the insurance companies to look after their property, it is estimated that 25 per cent. of the total number of fires in the metropolitan area have no insurance. This is an extraordinarily large proportion, but the statement, coming from such an authority, cannot be questioned. Many small householders and business firms do not insure at all.

The salvage corps' report draws attention to several peculiarities in fire risks. In 11 years the number of fires has increased 60 per cent., and the serious fires have fallen from 14 to 6 per cent. The claim is made that this result is caused by the special attention given to the isolation of portions of large warehouses and storage premises, and also to a lately introduced system of patrolling and inspecting under the directions of the fire-insurance managers. The best results have been shown in wharf and warehouse business.

As near as I could ascertain, what they call warehouse business means a business carried on in any building occupied by a firm in the dry goods, furniture business, etc.

They seem to have had a somewhat similar experience in London to what we have recently had in our American cities, doubtless coming from the changes in business methods, to which I have heretofore alluded.

About two years ago, the centre mile in London, around the Mansion House, was yielding large fire losses in what they called "warehouses," dealing in Manchester goods of a nature similar to dry goods. The insurance was raised 50 per cent., the results showing a loss even then; and while I was staying in London the companies were considering the question of making a still further increase of 20 per cent. on insurance rates. Their method of increasing the rate was to take every warehouse dealing in Manchester goods, and

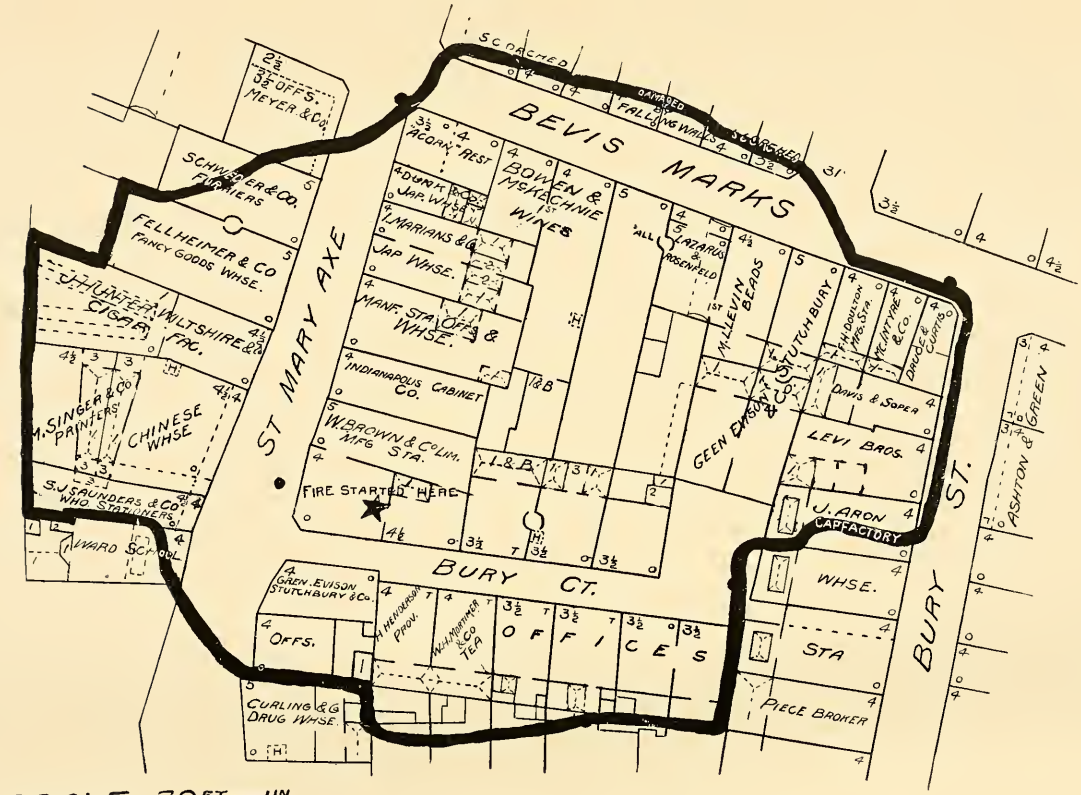
raise the premiums in the proportion that I have mentioned. But they did not apply this increase to every business building in the district.

I found it impossible to obtain definitely the number of fires in London causing a loss of over $25,000, but doubtless those marked "serious" in the brigade report are above that amount. In regard to notable fires, the reports of 1892 will show the cases of extension from one building to another. The construction of their buildings is of such a nature that the losses are confined generally to the building in which the fire originates, although during my short stay there were a number of extension fires fully as large as would have occurred during the same time in any American city.

For many years London has been singularly free from disastrous fires. Recently, however, she has had a different experience. The history of fires in great cities is more or less similar. They may have years free from conflagrations, and then they come with a vengeance. London has been no exception to the rule.

It has been said again and again that conflagrations were limited to American cities, owing to the wooden and careless construction. London has been held up for our edification. Yet a week or so ago they had a large conflagration, and a few days later they had another. Of the latter one it has been impossible for me to obtain the exact losses, owing to the peculiar methods that characterize the fire brigade's records. In this fire, the newspapers claim that the losses are between seven and eight millions. (See Plate No. 1.)

The accompanying plan of the fire was sketched and afterwards verified by a competent engineer. The amount of territory burned over was large. Forty buildings were destroyed, and 20 partially so. The buildings were all very small in area. The heights of the buildings ran from $3\frac{1}{2}$ to 5 stories, very few of them the latter height. The buildings were well constructed, in many cases occupied by offices, and presented no great difficulties in case of fire from the construction standpoint. The fire started in the corner of the building, at the point marked by a star, in the stationery shop of William Brown & Co. Owing to the slowness of the methods characterizing the fire departments on the other side, and the inflammable contents of the building, the fire, doubtless, got great headway. Even under these drawbacks it would seem, however, that, with so many partition walls, the fire should have been confined to its point of origin. If in such buildings as these in London, which are built not to burn, a



SCALE 70 FT = 1 IN

PLAN OF FIRE IN

LONDON.

Plate No. 1.

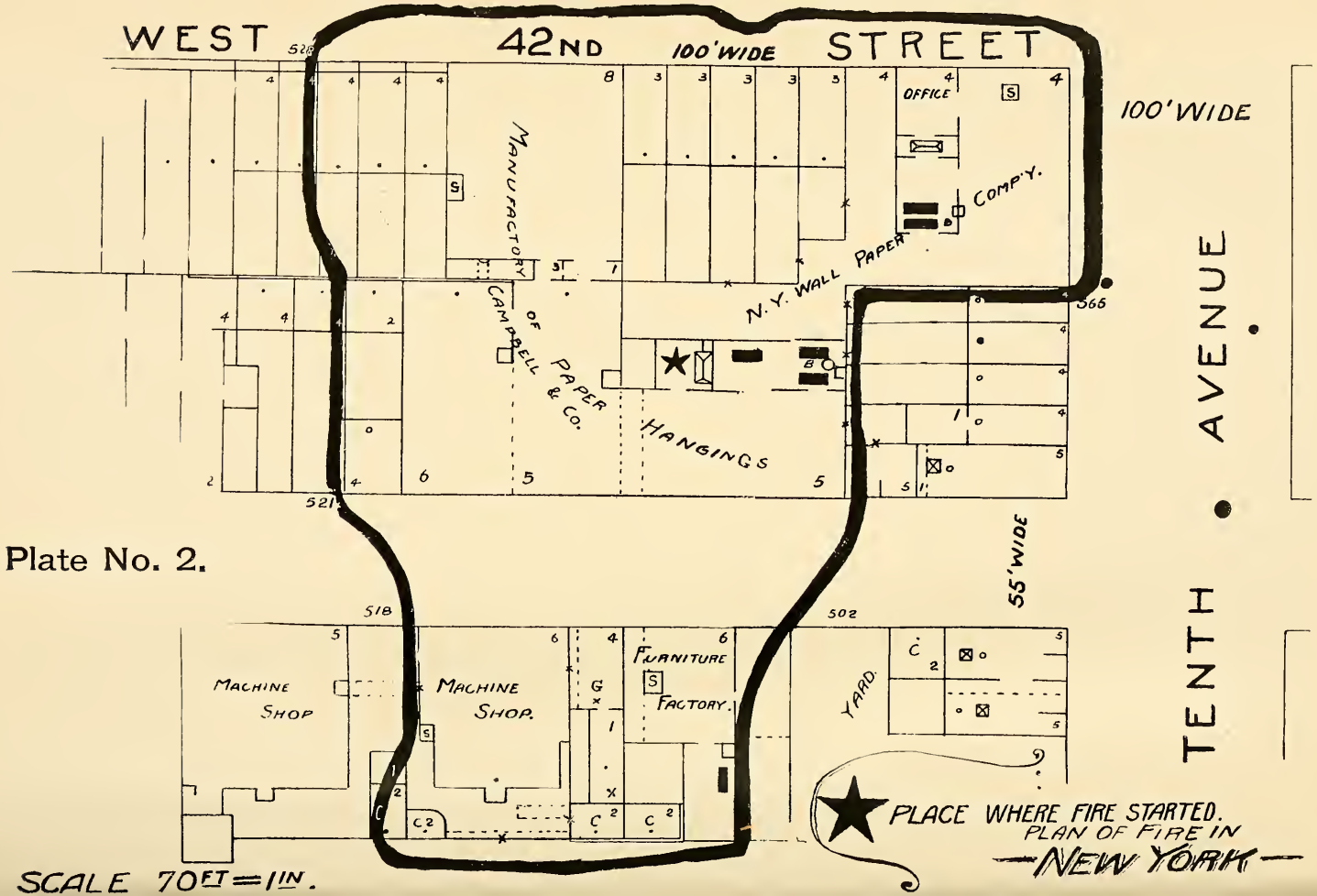

WEST 42ND STREET
100' WIDE
100' WIDE
TENTH AVENUE
55' WIDE
OFFICE
MANUFACTORY OF CAMPBELL PAPER & CO.
N.Y. WALL PAPER COMP'Y.
HANGINGS
MACHINE SHOP
MACHINE SHOP.
FURNITURE FACTORY.
YARD.
PLACE WHERE FIRE STARTED.
PLAN OF FIRE IN NEW YORK
SCALE 70 FT = 1 IN.

Plate No. 2.

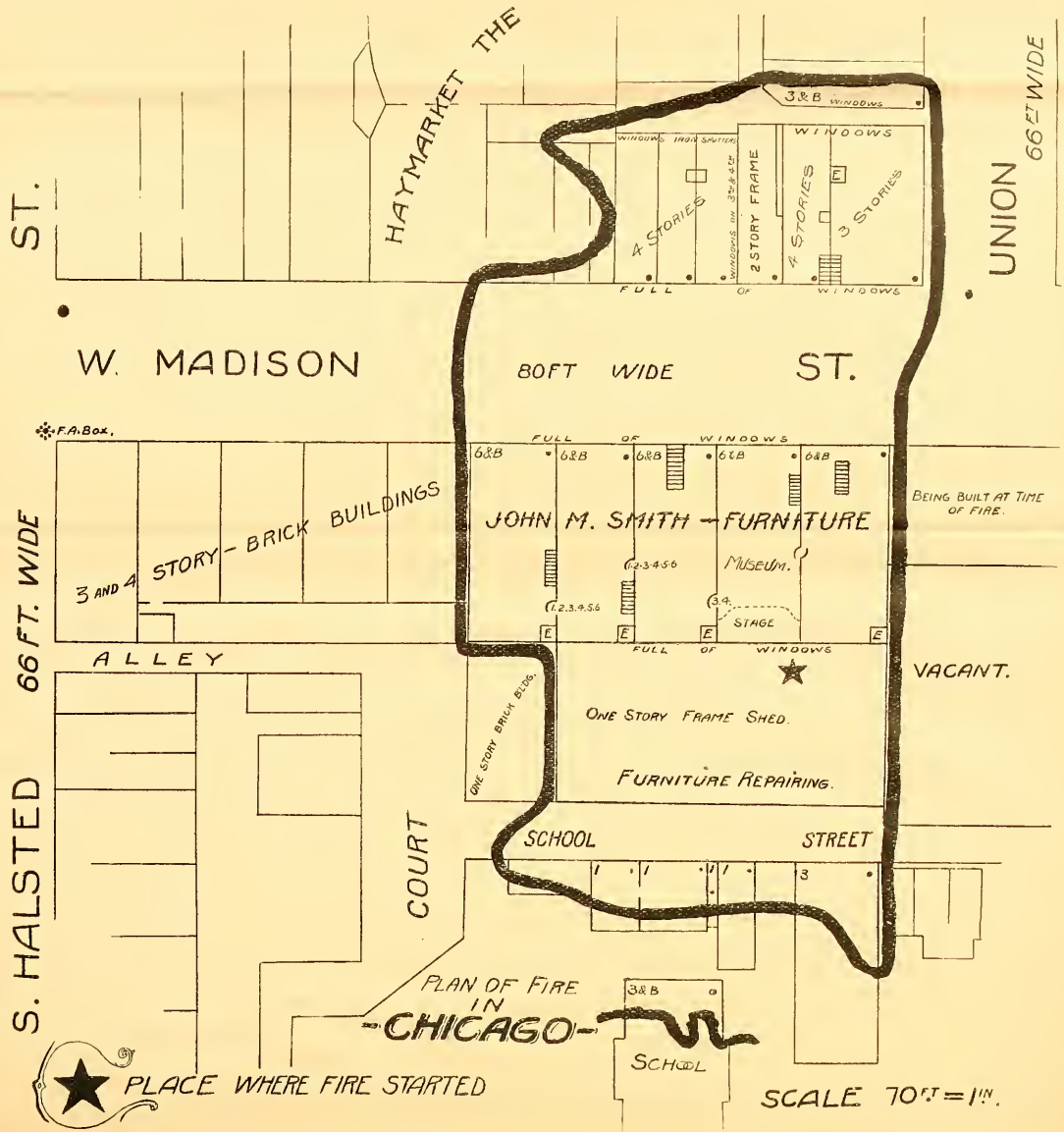

THE HAYMARKET
ST.
UNION
66 FT WIDE
3 & B WINDOWS
WINDOWS
4 STORIES
2 STORY FRAME
4 STORIES
3 STORIES
FULL OF WINDOWS
W. MADISON
80 FT WIDE
ST.
F.A. BOX.
FULL OF WINDOWS
6 & B
JOHN M. SMITH — FURNITURE
MUSEUM.
STAGE
BEING BUILT AT TIME OF FIRE.
3 AND 4 STORY — BRICK BUILDINGS
66 FT. WIDE
ALLEY
VACANT.
ONE STORY BRICK BLDG.
ONE STORY FRAME SHED.
FURNITURE REPAIRING.
SCHOOL
STREET
S. HALSTED
COURT
PLAN OF FIRE IN
— CHICAGO —
SCHOOL
PLACE WHERE FIRE STARTED
SCALE 70 FT = 1 IN.

Plate No. 3.

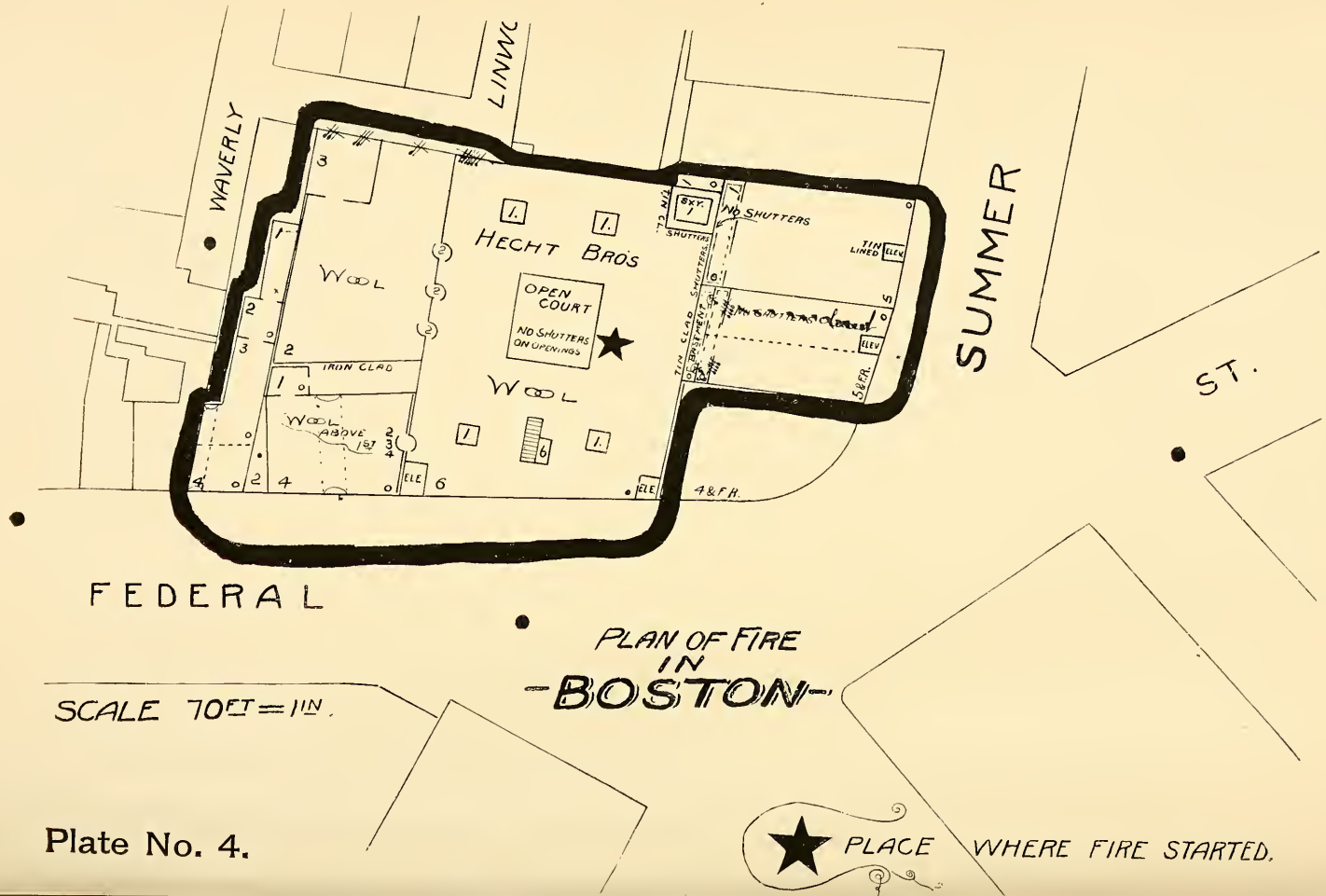

WAVERLY
LINWO
SUMMER
ST.
FEDERAL
HECHT BROS
WOOL
OPEN COURT
NO SHUTTERS ON OPENINGS
IRON CLAD
WOOL ABOVE 1ST
NO SHUTTERS
SHUTTERS
TIN LINED
ELEV
TIN CLAD SHUTTERS
BASEMENT
5 & F.R.
4 & F.R.
ELE
PLAN OF FIRE IN -BOSTON-
SCALE 70FT = 1IN.
PLACE WHERE FIRE STARTED.

Plate No. 4.

disastrous fire of this kind can occur, the wonder is that in American cities, with their large-area buildings and wooden construction, we have not had greater conflagrations.

The history of fires in New York, Chicago, and Boston shows somewhat similar results. A few days ago New York (if you will remember) had a large fire, the loss upon which, according to reports, was over $2,000,000. I say, according to reports, because the final results, doubtless, will curtail that figure. (See Plate No. 2.)

I submit a plan of that fire. The star marks the place where the fire started in Campbell & Co.'s paper-hanging establishment. The unbroken floor area of the building where the fire began was large. The result was inevitable, with such a large area filled with inflammable material. A great volume of flame was produced, and although 46 pieces of apparatus were on duty, the flames jumped a street 55 feet wide, and burned over 20 buildings.

If at this fire there had been other large-area buildings adjoining the territory burned over, it would have required all the efforts of the excellent New York service to have prevented further spread, and it is a question whether they would have succeeded in so doing.

I submit a plan of a fire in Chicago that occurred some time ago, which still further illustrates the dangers from large floor areas and ill-constructed buildings. The star shows where the fire started. It began in a one-story frame shed in the rear of a block of five buildings full of windows, and from this block the flames jumped a street 80 feet wide and burned the low buildings on the other side, three and four stories high; also the low buildings in the rear, on the other side of School street. The number of buildings affected in this fire was about 20. (See Plate No. 3.)

Here, again, was a case that, owing to the fact that in the neighborhood there were only low three-story brick buildings, the fire did not extend farther. The number of engines at this fire was thirty-four. It required the united efforts of a large part of the Chicago service to stop this conflagration.

We have, as you well know, the same trouble in Boston that they have had in New York and Chicago; but our large floor area buildings appear to be more poorly constructed than in the latter cities, and we are unfortunate in the sense that they are in the neighborhood of other large-area buildings, and are surrounded by narrow streets. I submit a plan of the Hecht building fire. (See Plate No. 4.)

The point where the fire was supposed to have started is shown by the star. It jumped across the small passageway (over the skylight), 8 feet in width, into the Summer-street

building, which had no shutters. By the falling of the walls the fire went into the building next the one without the shutters, also into the annex buildings on the Federal-street side, connected with the main building by iron doors. The construction of this building was the usual American construction which characterized buildings fifteen years ago, — plenty of wood, some iron and brick.

These three fires owe their spread to the vast volume of flame generated in a large floor area. In view of the construction of the buildings, and of the result of these fires, a great deal of credit should be given to the respective fire departments, especially so when we compare the fires with the plan of the fire in London, which spread as far and destroyed more buildings. With us they would be considered, from their small size, numerous brick partitions and good construction, extremely easy to handle in case of fire.

I personally inspected six of the most difficult "warehouse" risks in London. The business is similar to our large retail houses. The following are the risks.

The Army and Navy stores pay an insurance of thirteen shillings to a hundred pounds:

	Insurance.
Whiteley's (special)	21s.
Maple's shop and stores	10s. 6d.
Shoolbred's	13s.
J. & R. Morley	9s.
Hitchcock Williams	11s.

The plans of these buildings show the benefit accruing from the building laws, which limit not only areas, but the heights of the buildings, by the clause which says, "the cubical contents of any building shall not be over 216,000 feet." This law also compels the use of fire-proof material, and limits the style of doors that shall be cut through walls.

My personal inspection of these buildings showed that the floors were generally of concrete, the roofs of slate or metal, the ceilings concrete, arched bricking used everywhere, openings made in the walls protected by double steel doors, party walls of great thickness, subways from one building to another rather than passages overground,— in short, everything was done to produce perfect construction. The reason for this action of the occupants was that they might obtain low rates of insurance. Yet with all this excellence of construction in London, there are many large houses, as in Boston, who have to go abroad to obtain all the insurance they want.

The buildings of Maple & Co., upholsterers, cabinet-

building, which had no shutters. By the falling of the walls the fire went into the building next the one without the shutters, also into the annex buildings on the Federal-street side, connected with the main building by iron doors. The construction of this building was the usual American construction which characterized buildings fifteen years ago, — plenty of wood, some iron and brick.

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The buildings of Maple & Co., upholsterers, cabinet-

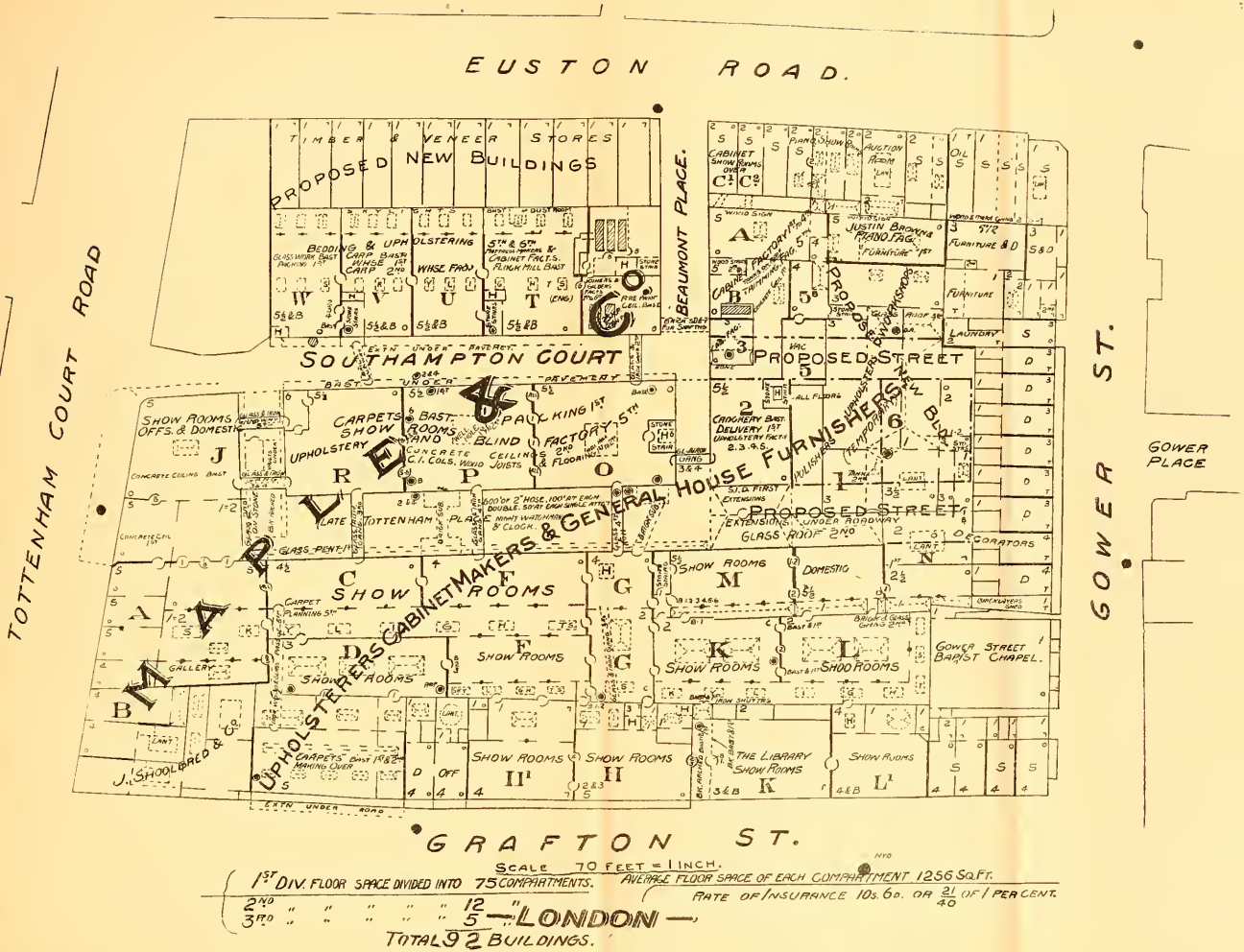

EUSTON ROAD.
TOTTENHAM COURT ROAD
GOWER ST.
GOWER PLACE
GRAFTON ST.
BEAUMONT PLACE.
PROPOSED NEW BUILDINGS
TIMBER & VENEER STORES
SOUTHAMPTON COURT
PROPOSED STREET
PROPOSED STREET EXTENSIONS UNDER ROADWAY GLASS ROOF 2ND
UPHOLSTERERS CABINETMAKERS & GENERAL HOUSE FURNISHERS
MAPLE & CO.
SHOW ROOMS
GOWER STREET BAPTIST CHAPEL.
THE LIBRARY SHOW ROOMS
SCALE 70 FEET = 1 INCH.
1ST DIV. FLOOR SPACE DIVIDED INTO 75 COMPARTMENTS.
AVERAGE FLOOR SPACE OF EACH COMPARTMENT 1256 SQ.FT.
2ND " " " " " 12 "
3RD " " " " " 5 "
RATE OF INSURANCE 10s. 6d. OR 21/40 OF 1 PER CENT.
— LONDON —
TOTAL 92 BUILDINGS.

Plate No. 5.

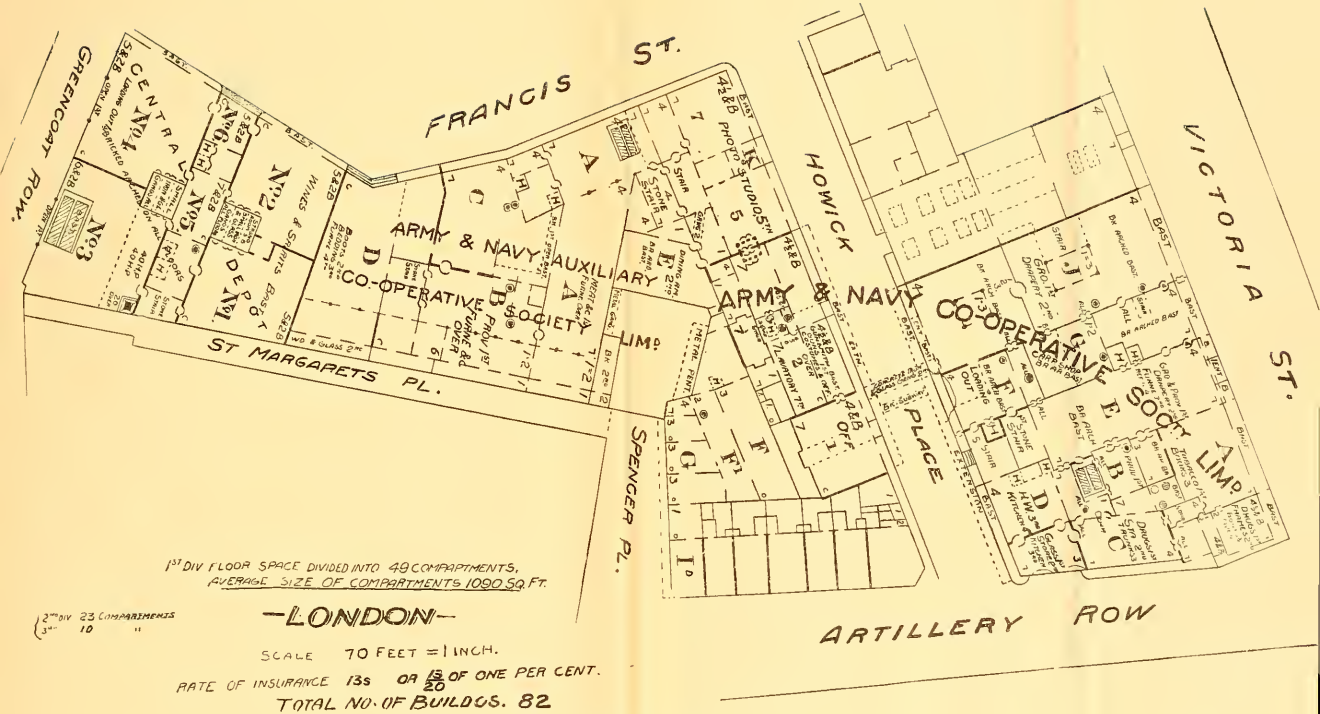

FRANCIS ST.
VICTORIA ST.
HOWICK PLACE
ARTILLERY ROW
SPENCER PL.
ST MARGARETS PL.
GREENCOAT ROW.
ARMY & NAVY AUXILIARY CO-OPERATIVE SOCIETY LIMD
ARMY & NAVY CO-OPERATIVE SOCTY LIMD
CENTRAL DEPOT
No. 1
No. 2
No. 3
No. 4
No. 5
No. 6
PHOTO STUDIO 5TH
1ST DIV FLOOR SPACE DIVIDED INTO 49 COMPARTMENTS,
AVERAGE SIZE OF COMPARTMENTS 1090 SQ. FT.
2ND DIV 23 COMPARTMENTS
3RD 10 "
—LONDON—
SCALE 70 FEET = 1 INCH.
RATE OF INSURANCE 13s OR 13/20 OF ONE PER CENT.
TOTAL NO. OF BUILDGS. 82

Plate No. 6.

makers, and general house furnishers, are divided into three divisions. I found the construction well-nigh perfect from a fire standpoint. In addition they seemed to have provided every appliance in the way of hose, night watchmen, etc., for meeting any possible emergency. (See Plate No. 5.)

The average area of each building in division 1 is 1,256 square feet; the heights of the buildings vary from 3 to 4 stories, and in some instances they are 5 stories high. The stories are excessively low studded, and the 5-story building in this case, as in most London buildings, appears to be not higher than an average 3-story building in America. The total number of buildings occupied by Maple & Co. is 75 in one division, 12 in another, and 5 in a third. The result of having so many buildings divided by brick walls, with double iron doors covering the openings (and the size of these doors limited), is the general prevention of the spread of fire beyond the building where it originates.

The theory of the construction of all large buildings in London is to be praised. It is the same principle which makes the modern ocean steamer well-nigh unsinkable. A series of water-tight compartments, with all connections provided with doors, has robbed the sea of many of its dangers. The same principle, with fire-proof construction, applied in buildings in London, has prevented the disastrous fires from large floor area buildings by which American cities have suffered.

A few of the marked characteristics of Maple & Co.'s are concrete ceilings, in many cases stone stairs, windows protected by iron shutters, and the isolation of the dangerous portions of the business in specially constructed buildings, so that in case of fire that particular portion of the business would be injured and no other.

What is true of the construction of Maple & Co.'s is equally true, to a greater or less extent, of the plans of five other buildings.

The Army and Navy Coöperative Society carries on general stores somewhat similar to one of our large retail dry-goods houses. One portion of their business is in stores between Victoria street, Howick place, and Artillery row; the other portion between Francis street, Howick place, Spencer place, Greencoat row, and St. Margaret's place. The average area of the buildings in the first division is 1,090 square feet; the total number of the buildings is 49 in the first division, 23 in the second, and 10 in the third. The heights of the buildings are 3 stories, 4 stories, and in a few cases 5 stories. (See Plate No. 6.)

In the examination that I made of these stores, it struck

me that their construction was a little better than the average London building. They were provided with brick arches, stone stairs, numerous thick brick partition walls, and an isolation in separate buildings, with brick arched floors of the departments where danger was to be expected from fire. The streets were fairly wide, especially so when the heights of the buildings are considered. In the immediate neighborhood there appeared to be no other large buildings. This reduces the danger.

In William Whiteley's stores there have been many costly fires in times past, involving large losses, yet, owing to the method of subdivision into numerous small buildings by partition walls, the fires have never completely destroyed the whole property. It is divided into two distinct parts by Douglass place, under which subways are run. The total area of one part is 70,400 square feet, and it is divided into 109 buildings. The area of part 2 is 72,000 square feet, divided into 40 buildings. Owing to the fact that the rate of insurance paid upon these buildings is 21 shillings, and the reputation they have enjoyed for large fires, my examination was very thorough. The portion of the stores facing on Queen's row are of first-class construction, — concrete, stone floors, walls of great thickness, double doors protecting openings in the wall, and brick arches in the basement. In short, everything seemed to have been done to prevent the spread of fire. (See Plate No. 7.)

Whiteley's stores are considered the most extensive of their kind in London. This business is like that of Jordan, Marsh, & Co , or R. H. White & Co., or even a little more extensive, as he deals in oils, paints, provisions, and flour, and has a book-bindery, a butcher shop, and other things that seem a little out of place in a dry-goods store.

If the same buildings were in Boston they would be considered a cheap fire risk. The owner, however, I am informed, has been unable to get all the insurance he wanted. The height of the buildings is so low (in some cases they hardly average as high as an ordinary American dwelling-house), and their construction is so good, that the fire department, either in Boston, New York, or Chicago, would have no trouble in preventing much damage in case of fire.

The business quarters of Shoolbred & Co., drapers and house furnishers, face on Tottenham-court road, 82 feet wide; Grafton street, 49 feet wide; Huntley street. 45 feet wide; and University street, 44 feet wide. Four stories is the average height of all the buildings, and very low stories at that. Measured by the eye, they appear to be about 50

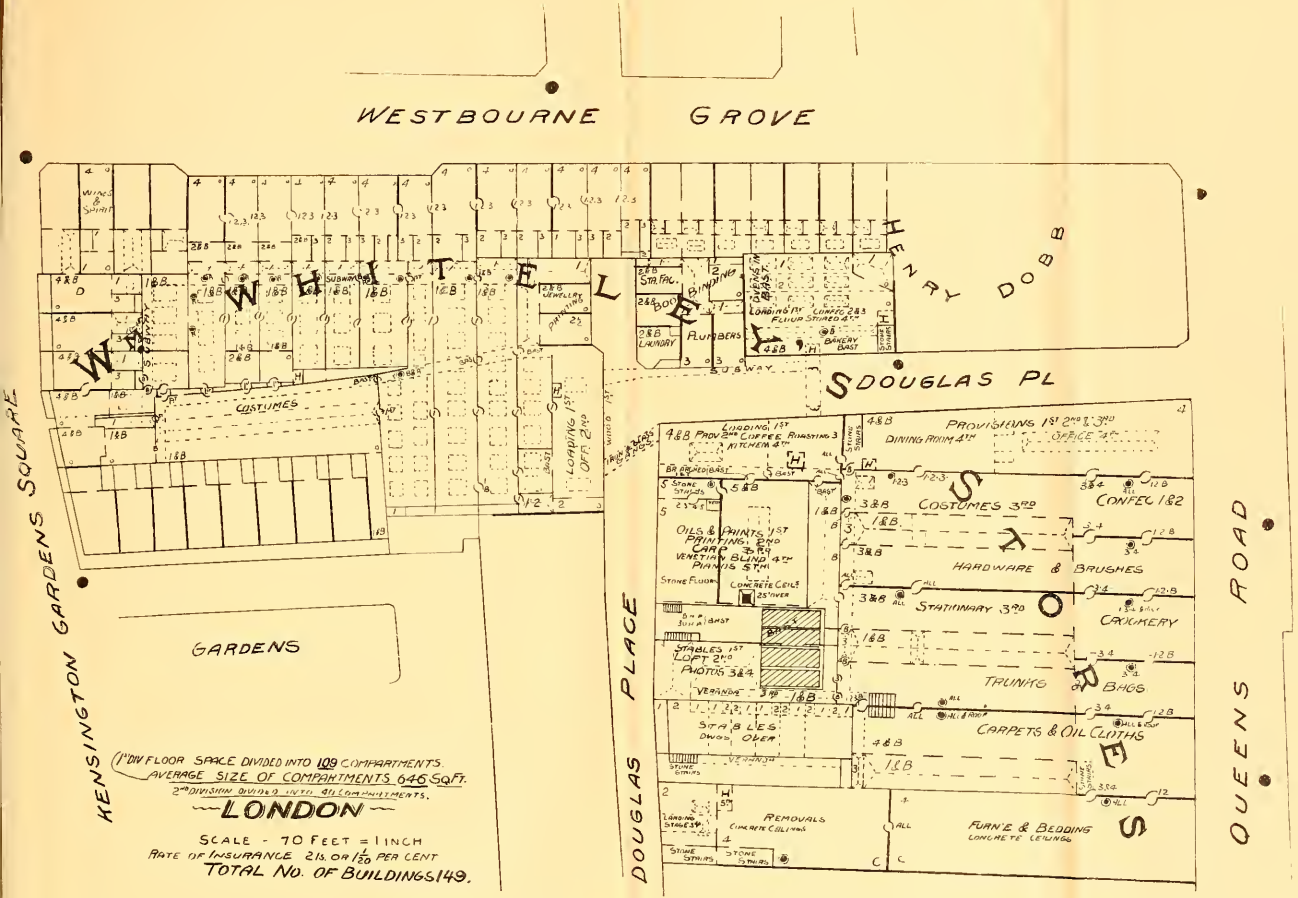
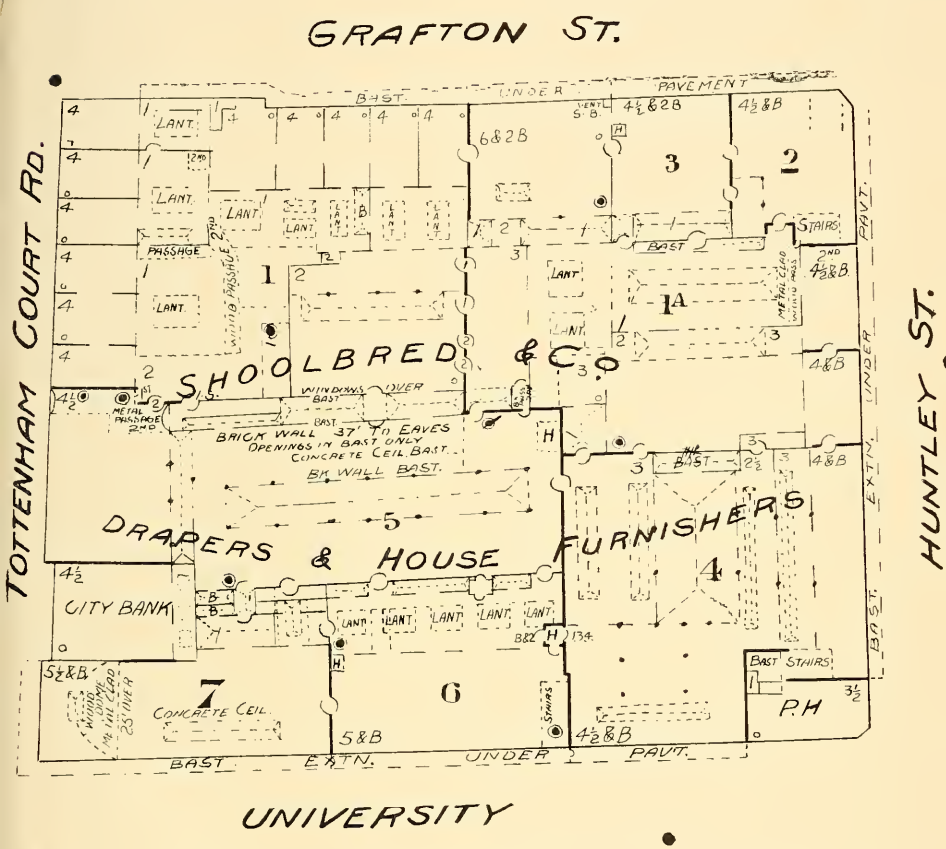

WESTBOURNE GROVE
HENRY DOBB
DOUGLAS PL
DOUGLAS PLACE
KENSINGTON GARDENS SQUARE
QUEENS ROAD
GARDENS
WHITELEY'S STORES
COSTUMES
PLUMBERS
LAUNDRY
BOOT BINDING
LOADING 1ST OFF. 2ND
PROVISIONS 1ST 2ND & 3RD
DINING ROOM 4TH
OFFICE 4TH
COSTUMES 3RD
CONFEC 1&2
HARDWARE & BRUSHES
STATIONARY 3RD
CROCKERY
TRUNKS & BAGS
CARPETS & OIL CLOTHS
FURN'E & BEDDING
CONCRETE CEILINGS
REMOVALS
CONCRETE CEILINGS
STABLES 1ST
LOFT 2ND
PHOTOS 3&4
STABLES
DWGS OVER
OILS & PAINTS 1ST
PRINTING 2ND
CARP 3RD
VENETIAN BLIND 4TH
PIANOS 5TH
CONCRETE CEILS
25' OVER
STONE STAIRS
1ST DIV FLOOR SPACE DIVIDED INTO 109 COMPARTMENTS.
AVERAGE SIZE OF COMPARTMENTS 646 SQ.FT.
2ND DIVISION DIVIDED INTO 411 COMPARTMENTS.
LONDON
SCALE - 70 FEET = 1 INCH
RATE OF INSURANCE 21s. OR 1 1/20 PER CENT
TOTAL NO. OF BUILDINGS 149.

Plate No. 7.

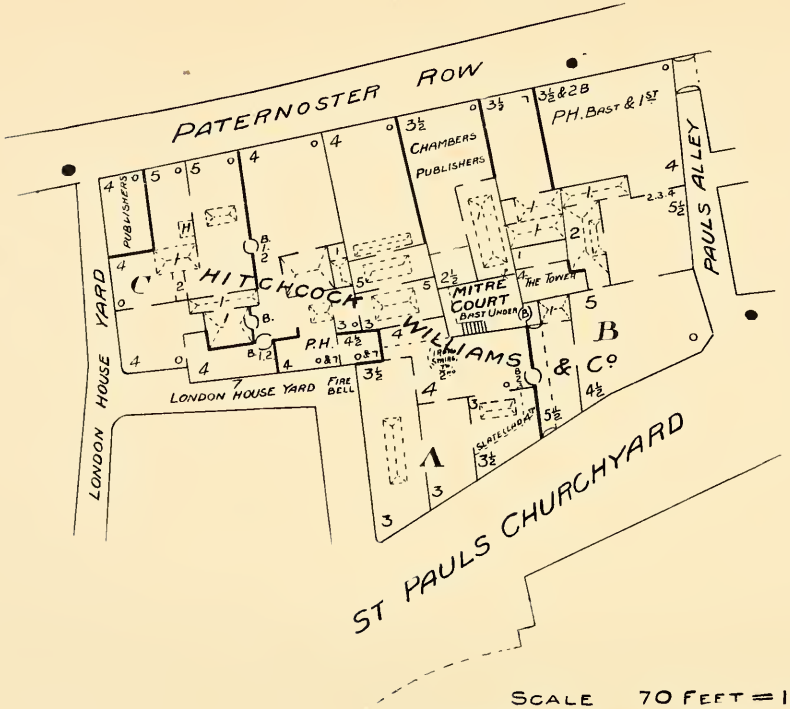


SCALE 70 FEET = 1 INCH.
FLOOR SPACE DIVIDED INTO 56 COMPARTMENTS.
AVERAGE SIZE OF COMPARTMENTS 1287½ SQ. FT.

LONDON

RATE OF INSURANCE 13s. OR $\frac{13}{20}$ OF 1 PER CENT.

Plate No. 8.



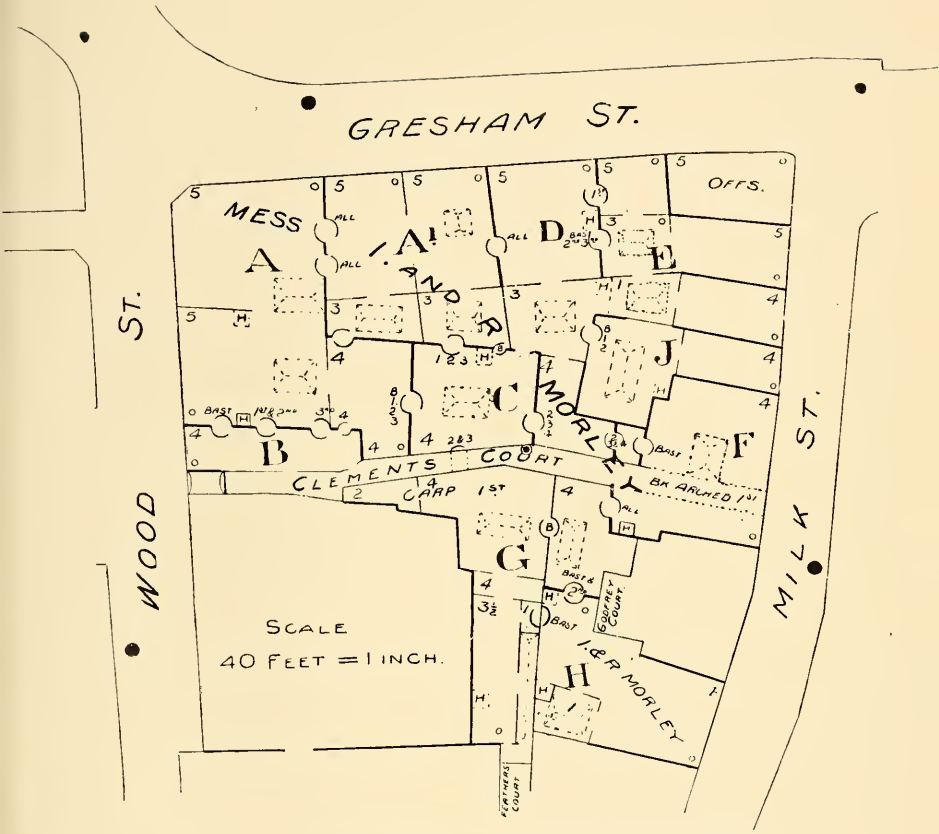
SCALE 70 FEET = 1 INCH

FLOOR SPACE DIVIDED INTO 30 COMPARTMENTS.
AVERAGE SIZE OF COMPARTMENTS 800 SQ. FT.

—LONDON—

RATE OF INSURANCE 11s. OR $\frac{11}{20}$ OF 1 PER CENT.

Plate No. 9.



FLOOR SPACE DIVIDED INTO 28 COMPARTMENTS
AVERAGE SIZE OF COMPARTMENTS 1243 SQ. FT.

—LONDON—

SCALE 70 FEET = 1 INCH
RATE OF INSURANCE 9s OR $\frac{9}{20}$ OF 1 PER CENT.

Plate No. 10.

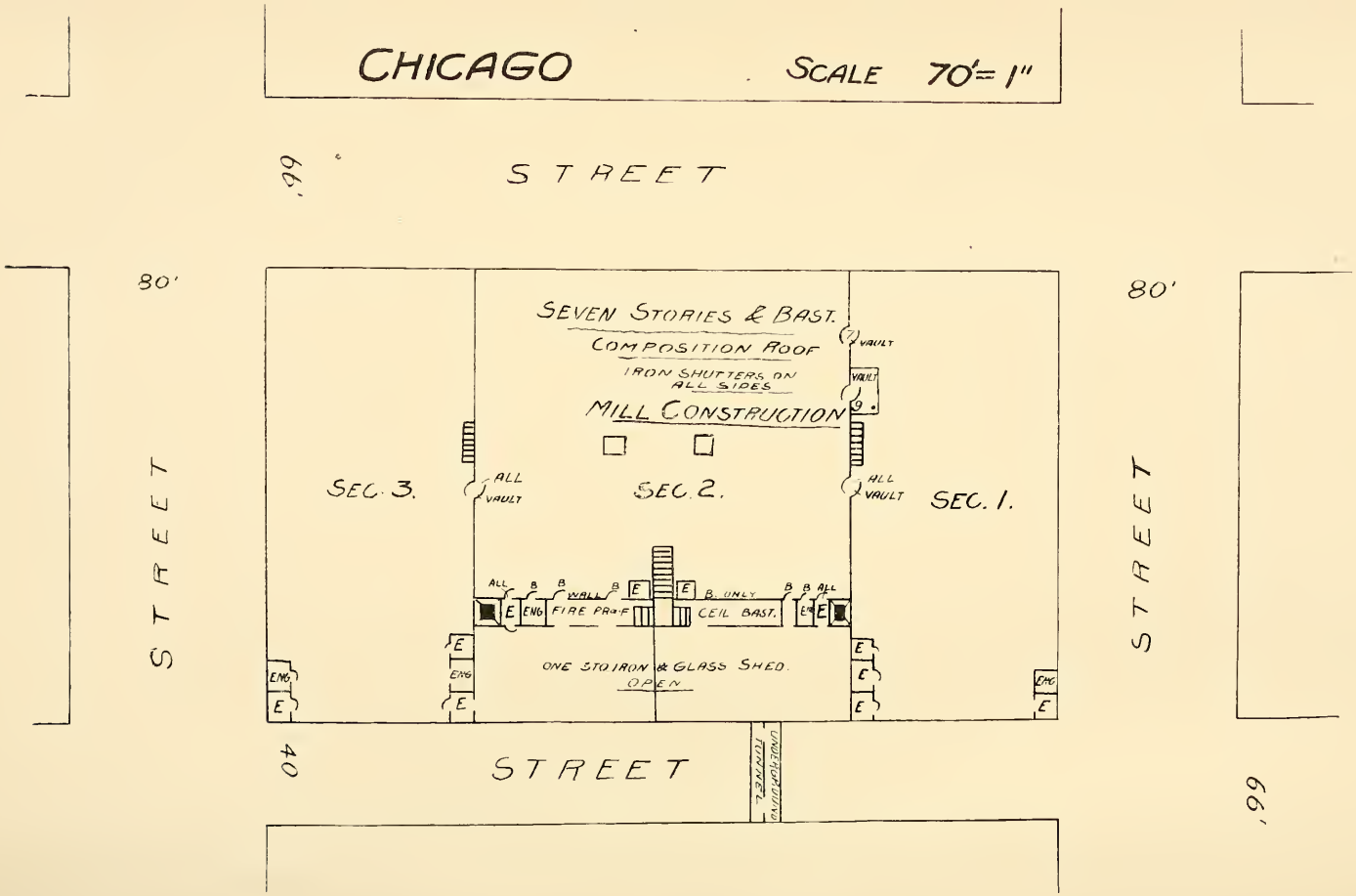

CHICAGO
SCALE 70'= 1"
66'
STREET
80'
80'
STREET
STREET
SEVEN STORIES & BAST.
COMPOSITION ROOF
IRON SHUTTERS ON ALL SIDES
MILL CONSTRUCTION
VAULT
VAULT
SEC. 3.
ALL VAULT
SEC. 2.
ALL VAULT
SEC. 1.
ALL
B
B
WALL
B
E
E
B. ONLY
B
B
ALL
E
ENG
FIRE PROOF
CEIL BAST.
ENG
E
E
ENG
E
ONE STO IRON & GLASS SHED.
OPEN
E
E
E
ENG
E
ENG
E
40
STREET
UNDERGROUND TUNNEL
66'

Plate No. 11.

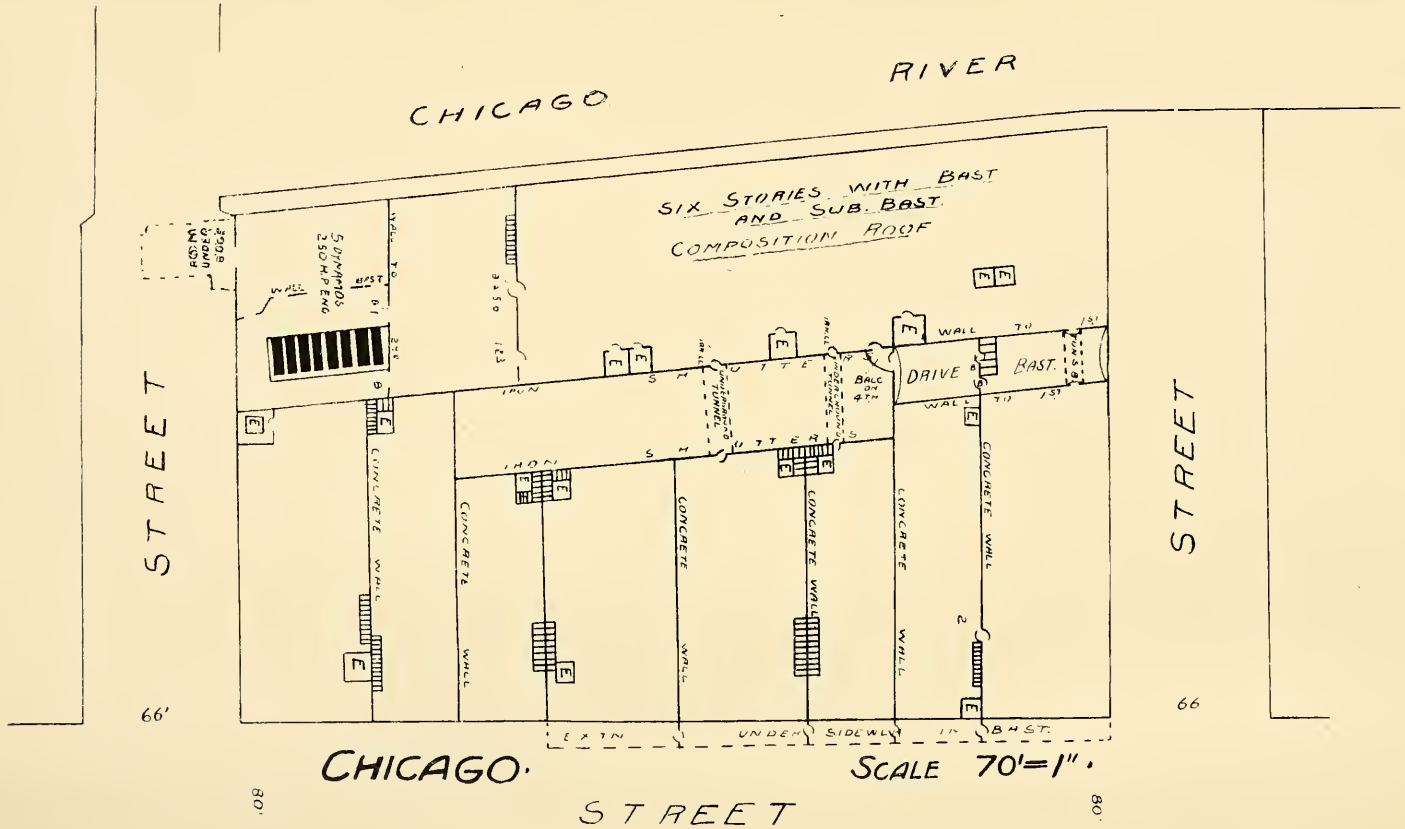

CHICAGO RIVER
SIX STORIES WITH BAST AND SUB. BAST.
COMPOSITION ROOF
5 DYNAMOS 250 H.P. ENG
WALL TO 1ST
DRIVE BAST.
BALC ON 4TH
IRON SHUTTERS
CONCRETE WALL
EXTN UNDER SIDEWLK IN BAST.
STREET
66'
66
80'
80'
CHICAGO.
SCALE 70'=1".
STREET

Plate No. 12.

feet high, or even less. Here I found concrete ceilings in many parts, slate and metal roofs, thick brick walls with double fire doors protecting the openings, and a well-constructed building. The total area which the external walls of the building enclose is 72,000 square feet. The number of buildings into which this area is divided is 56. (See Plate No. 8.)

The buildings of Hitchcock, Williams, & Co., facing on Paternoster row, Paul's alley, and St. Paul's churchyard, are situated in a section where some disastrous fires have occurred. The total area of the buildings is 24,000 square feet. This area is divided into 30 buildings. The height runs from 3½ stories to 4, and in a few cases 5. The same good construction and the use of thick brick partition walls is to be found here. In fact, you find it everywhere in London. (See Plate No. 9.)

Messrs. I. & R. Morley, situated on Gresham street, Mill street, and Wood street, is divided into twenty-eight different buildings. The total area within the external walls is 35,100 square feet. The number of buildings into which this area is divided is twenty-eight; average area of subdivisions, 1,243 square feet. (See Plate No. 10.)

My reasons for referring to these buildings are: first, to give an idea of their excellent construction; next, to show the common-sense methods which characterize the business men of London in isolating the dangerous portions of their business, and in the use of brick partition walls, which is the greatest safeguard for the prevention of the spread of fire.

Again, I desire to contrast the easy task which the London buildings present to the English fireman with the problem which faces the American fireman from poorly constructed, large-area buildings.

To illustrate, and for comparison, I submit the following plans of American buildings:

No. 11 represents a seven-story and basement, composition roof, iron shutters, mill construction, well-built building in Chicago. The fact that it is divided into four parts and is surrounded by broad thoroughfares, and its general good construction, makes it a very excellent fire-risk.

No. 12 represents a second square or building in Chicago. It is divided into eleven different buildings, separated in the most part one from the other. It has the same good points that mark the first building. In addition to the excellent construction and the broad streets upon which the buildings face, which are marked characteristics in Chicago, the law regarding the erection of standpipes is to be commended. Buildings of a certain number of stories and over a certain floor area are required to have permanently fixed on the out-

side pipes of the requisite diameter with connections at each story, and iron ladders with balconies. It places the Chicago Fire Department in such a position that when they arrive at a fire they have, by means of this law, water-towers all ready for use and ladders fixed in position with which they can reach the top of any building. The good point of this permanent pipe, with its connections for hose, is the fact that it means no extra expense for water to owners or occupants. The engines make connections from the bottom and supply the water from the public mains.

Nos. 13 and 14 are representative buildings in New York City. The widths of the streets on plan No. 13 are 100, 75, and 60 feet respectively. The building in question is large, situated on a corner and divided into three parts with double iron doors, which help wonderfully to protect from the extension of fire. The general construction is good; the height, 7 stories in two of the parts and 8 stories in the third division.

No. 14 represents one business facing on two streets of 100 feet in width and one of 60. It varies in stories from one to five, as shown by the marginal figures. One portion divided from the main building by brick walls is 9 stories high. General construction fair.

The New York and Chicago buildings represent the business of one firm.

Plans Nos. 15 and 16 take in squares of property in Boston and represent the business of different firms; yet in single instances they show larger unbroken areas and that lack of division brick walls which characterize Plans 11, 12, 13, and 14. The narrowness of the streets with us is remarkable.

In No. 15 the numbers round the edge designate the stories. The large floor areas which characterize some of the buildings are extremely noticeable.

Plan No. 16 takes in a little more than one block or square, and has all the points that handicap a fire department that you find in plan No. 15.

The scale of all these plans being drawn 70 feet to the inch, it is comparatively easy, by actual measurement, to estimate the areas of the respective buildings; and it does not require any expert knowledge to see the advantages of one city over the other.

The following table gives the largest areas of the buildings in the plans submitted:

Large area building in London plan .	None.
Largest area building in New York plan (unbroken by partition) . . .	22,800 sq. feet.

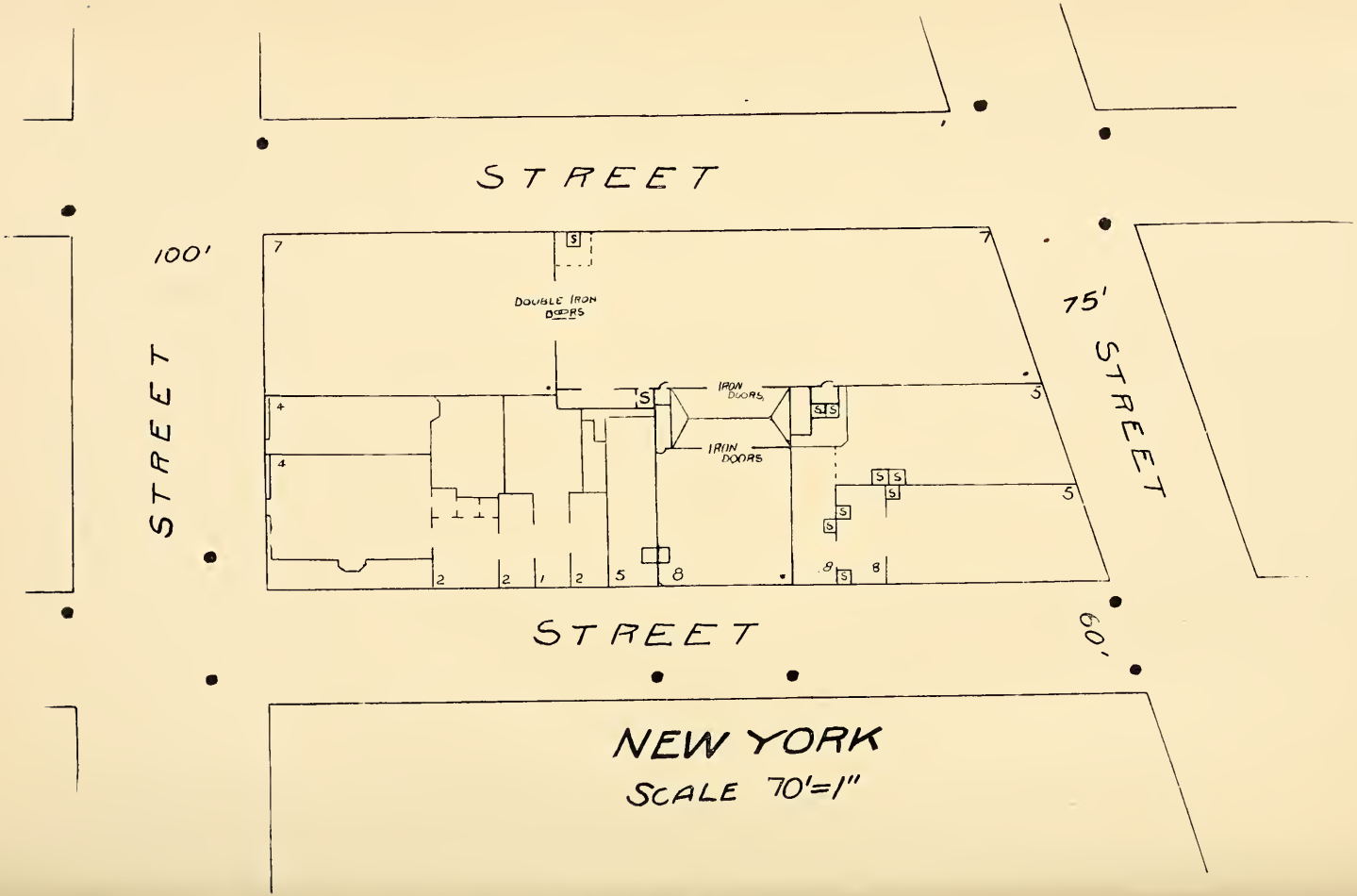

STREET
100'
STREET
DOUBLE IRON DOORS
IRON DOORS
IRON DOORS
75'
STREET
STREET
60'
NEW YORK
SCALE 70'=1"

Plate No. 13.

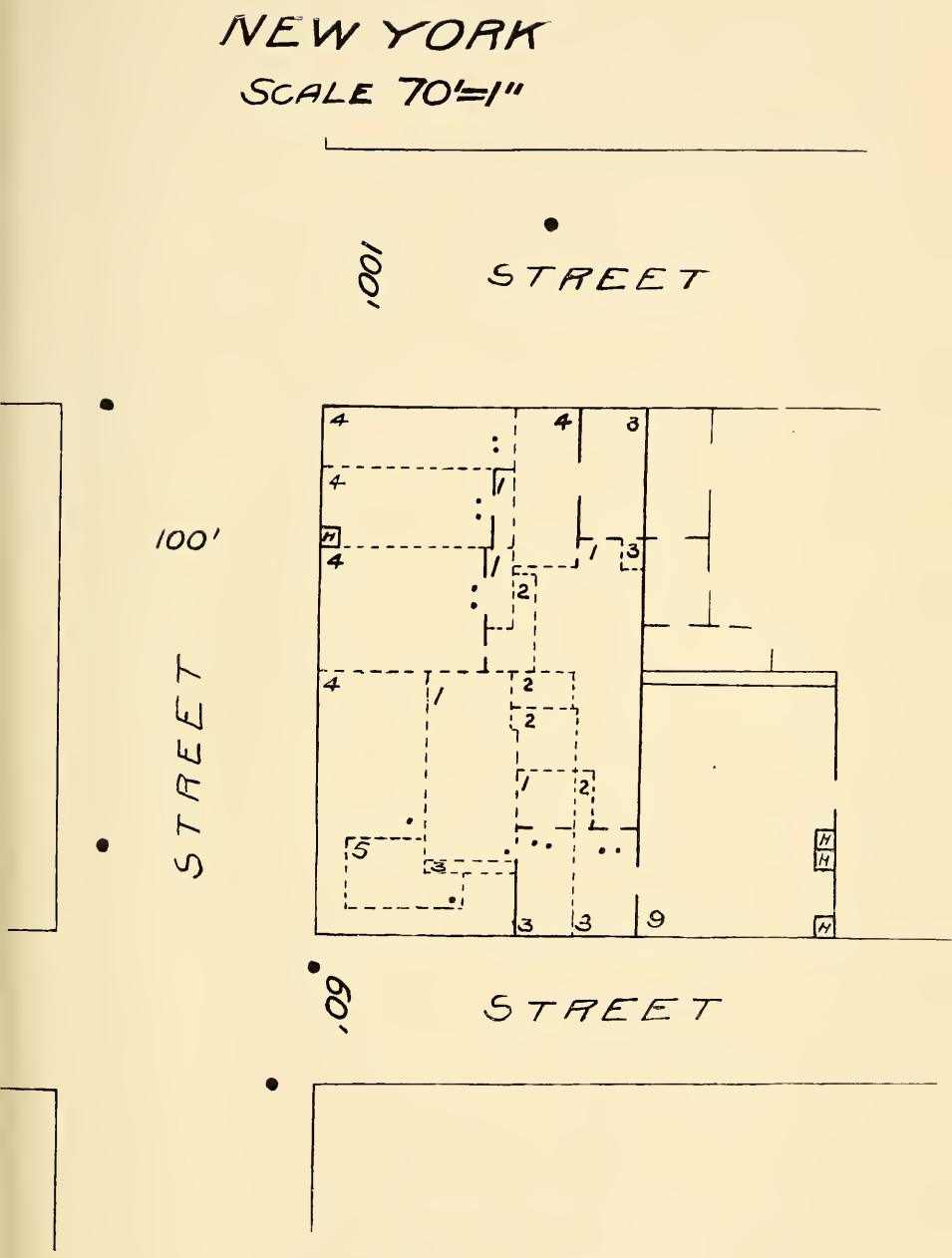


Plate No. 14.

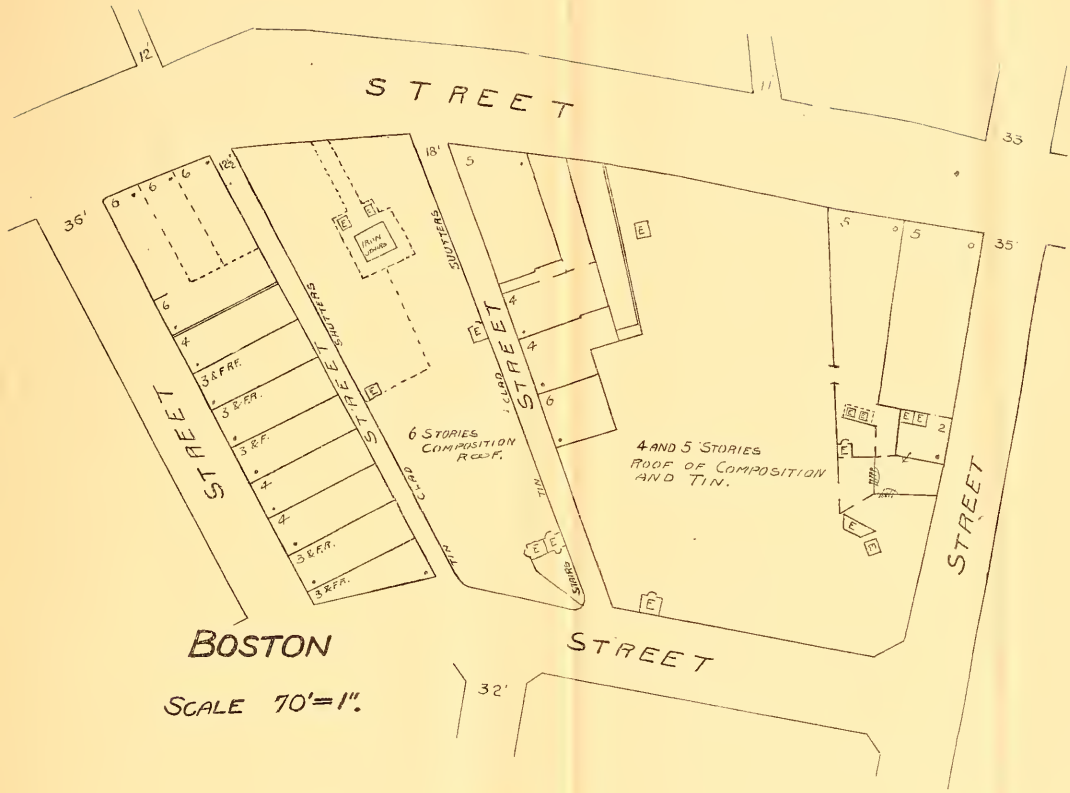

STREET
STREET
STREET
STREET
STREET
STREET
12'
11'
33
36'
35'
32'
18'
12½'
6 STORIES COMPOSITION ROOF.
4 AND 5 STORIES ROOF OF COMPOSITION AND TIN.
3 & F.R.F.
3 & F.R.
3 & F.
3 & F.R.
3 & F.R.
IRON JOINTS
SHUTTERS
SHUTTERS
CLAD
CLAD
TIN
TIN
SHARP
BOSTON
SCALE 70'=1".

Plate No. 16.

STREET.
46'
52'
33'
57'
WELL HOLE
ELEV.
IRON CLAD
TIN CLAD
ELEV.
TIN CLAD SHUTTERS SIDE BAR
WOODEN FRAME
STREET
STREET
4 & FR ROOF
5 & FR ROOF
TIN CLAD
TIN CLAD
FIRE PROOF SHAFTS
33'
60'
40'
50'
BOSTON
SCALE 70'=1"

Plate No. 15.

Largest area building in Chicago plan (unbroken by partition) . . .	24,300 sq. feet.
Largest area building in Boston plan (unbroken by partition) . . .	52,000 "

New York has buildings of larger area than those of which plans are submitted, but in many cases they are of fire-proof construction, and the same is true of Chicago.

The laws governing explosives, petroleum, etc., in London are very exhaustive, and contain points which I recommend to the Boston commission's consideration.

I gave some attention, as instructed by the Board, to the Metropolitan Buildings Act and the various laws governing buildings in London. I have also made a comparison between them and the New York and Boston building acts.

There are 550,000 to 600,000 buildings in London, none of which are of wood, and of this great number previous to 1890 there were only two or three that violate the law and exceed a greater dimension than 216,000 cubic feet, or an area of about 3,600 feet to a floor if there are three stories 60 × 60 × 20. One of these buildings is a large gas retort and one an electric-light company station, for the building of which special parliamentary sanction had to be obtained.

Fancy in Boston our being obliged to go to Washington in order to obtain permission to build a large-area building! The twenty-ninth section of the London County Council Act of 1890, which allows buildings used for one business of a non-inflammable nature (by special permission of the county council) to be built containing 450,000 cubic feet (this is a building of about 77 feet front by 77 feet deep by 77 feet high), has only permitted the erection of 15 warehouses. In other words, there are in London only three buildings, built by special permission of the English Parliament, larger than 216,000 cubic feet, and only 15 which reach the maximum of 450,000 feet. If under the London law a larger floor area than about 3,000 square feet is to be obtained, the building must be two stories or one story in height according to the area of the floor desired.

If our American cities were built on this plan, what a wonderful improvement there would be in our fire records!

London's advantage at present is that she has been reaping the benefit of excellent laws for years, while in New York and Boston they are in their infancy.

It would be well to look into the portions of the law which cover fire-escapes, theatres, protection of light wires used in electricity, of which Boston takes no notice, and the legal portion, especially that which refers to the court decisions.

The area of light wells is not allowed to go below 100 square feet in London, and must be built of fire-proof material. In Boston and New York they are not limited, and as a result we have reached a very poor state of things in this direction. Many of our so-called light wells are so small that they are like flues of a chimney.

The building laws of Boston at the present time resemble in many particular points those of London. They are to be commended in the main. Doubtless, during the next year or two, experience will show necessary changes that should be made, if it has not already done so, and our laws will be the perfect ones that a city of Boston's wealth and population demands.

New Fire-Alarm System in Paris.

Paris is divided into 24 districts. Each district has a central station equipped with the necessary fire apparatus and a number of men, some of whom are qualified to operate the electrical apparatus.

These central stations vary somewhat in the extent of their equipment, the more important of them being denominated "casernes," and the others "post centrals," the latter being located in the less important districts, and only having electrical connection with the fire-alarm boxes in their district and the caserne most convenient to them.

There is one central station, which is the headquarters of the entire system.

Each caserne is connected not only with its dependent post central station and some fire-boxes, but to the main central station. The system is operated by two methods. By the use of a double wire cable, connections are made between the several stations, and so arranged that when standing at rest a ground circuit is formed through a set of electro-magnetic apparatus located in the central stations, termed in this system the "Morse Special."

This apparatus is controlled by mechanical devices in the fire-alarm boxes, which are set in motion by the person giving the alarm. An inscription on the outside of each box says that he is simply to break the glass inserted in the centre of the door to ensure the desired result. The act of breaking the glass produces three results, viz.: The door is thrown open and a mechanical gong on the inside of it is set ringing in the same manner and for the same purpose as those of the keyless doors used in the Boston system. A bell in the central station is also set ringing, indicating to the men in charge that a call has been made for some box in their

district. The mechanism of the box is also started automatically, a part of which consists of a wheel somewhat like that in the old district box abandoned in Boston years ago.

The revolution of this wheel transmits to the central station a series of arbitrary signals, which are recorded on paper by a Morse register, and when translated by code, indicate the box from which they were sent. By a further action of the signal wheel the "Special Morse" circuit is opened, and a metallic circuit established through the telephones, which also form a part of the equipment of each fire-alarm box.

On the inside of each fire-alarm box are displayed further instructions to the senders of alarms, to the effect that they shall immediately communicate to the central station, by means of the telephone, the location and character of the fire or other cause for which the call was given. The boxes contain no receivers, consequently the person sending a message has no means of knowing whether he has been correctly understood. He is only informed by an inductive sound in his transmitter, made by the person at the central station, that a message has been received. In addition the central stations are equipped with a telephonic system, and are able to talk with any other central, or with the grand central, as occasion requires.

On the receipt of an alarm, the party receiving it at the central makes such a disposition of the apparatus as the size of the fire may require, by calling upon the posts de ville or apparatus houses within his district. If in his judgment there should be additional apparatus sent, he calls on the main central for further instructions. The whole matter of moving the apparatus is performed with the telephones, no use being made of the special Morse service except that of indicating the signal-box from which the call was sent. If, however, the telephone service should fail, they then use their Morse apparatus to transmit their messages between the central stations.

Notwithstanding the fact that their wires are so placed beneath the streets as to secure almost absolute safety to them (chiefly on account of the subways for sewers through which they pass being so admirably constructed, and because no high-tension currents from other service are being discharged into the earth, as in the city of Boston), they take every precaution to avert or correct any faults that might occasionally become manifest.

Their lines and stations are tested every day during the stormy periods of the winter season, and once a week at other times.

This system, as here described, appears to be well contrived, carefully constructed, and is, no doubt, successfully operated. While it is probably everything that a city like Paris requires, with its practically incombustible buildings and broad avenues, it is evident that the tinder-boxes of Boston would have little chance for safety should a fire in any of them be allowed to have its way while the apparatus was being instructed to proceed to the spot by any such elaborate process.

The system which we have inaugurated of having a telephone in connection with the fire-alarm boxes in Boston on special circuits, independent of those now in use, should be extended, and the idea of using telephones for sending in alarms of fire after the box has been operated should be thoroughly investigated. To have telephones in all boxes would be at least a useful auxiliary to the present Morse key, and it seems to me as if it could be made as reliable, if not more so. It would serve one purpose, that of minimizing the danger of losing an alarm when more than one box is pulled at the same time for the same fire.

The idea which is embodied in the Paris service of automatically sending in an alarm by the mere breaking of the glass should be adopted in the American fire-alarm box. Considerable time would be saved over the present system, which necessitates opening the box and then pulling down the hook before an alarm is sent.

The time has come for using a telephonic system as an auxiliary, or even more than an auxiliary, to the present system in use in American fire-alarm departments. It is true that we use it in our covering system between our various houses, but we should go one step further and see if there is not an advantage to be gained from embodying it in our public fire-alarm system.

All the above statements I have endeavored personally to verify. The plans of the fires and of the buildings in London are verified by competent men. The information regarding London insurance has been obtained from managers in the business of high standing. I have every reason to believe that it is reliable. London is a great centre for the insurance business, not only of England, but of other countries. The methods of carrying it on are admirable, and the desire on the part of the managers appears to be to obtain a fair profit on their investments.

In Boston our heaviest losses — and we are no exception to the rule — have been from dangerous fire-risks, well known to insurance and fire men. It will be years before we will reap the benefit of good building laws. In the

mean time, buildings of bad construction, which have been built in years past, should be specially marked, and everything done to minimize the danger from them in case of fire. They should be patrolled, together with the dangerous sections of the city.

The plan of the Board to strengthen the service, both in water-supply and apparatus, in the heart of the city should be carried out, and the suburbs of the city receive just what they require at the present time, and not what their possible needs will demand some years from now.

The plan of fixed pipes with water connections, and iron ladders and balconies on dangerous buildings, should be considered, and, if found advisable, their adoption compelled by law.

Wires running near dangerous risks should be put underground, or where that cannot be done, run over the tops of the buildings.

Coöperation on the part of our citizens with the authorities to bring about the same favorable conditions as exist in other great cities will aid materially to reduce the fire-risks of Boston.

Respectfully,

JOHN R. MURPHY.

REPORT OF THE CITY ENGINEER ON TESTS OF ENGINES.

Engineering Department, 50 City Hall.

Mr. Robert G. Fitch,
Chairman Board of Fire Commissioners:

Dear Sir: In compliance with your request of September 21, 1893, a series of tests have been made of the different types and sizes of the steam fire-engines in use in your department, for the purpose of determining, as nearly as practicable, their capacity and efficiency under the conditions actually occurring at fires.

Incidentally, tests were made of the comparative efficiency of $2\frac{1}{2}$-inch and 3-inch fire-hose, of the discharging capacity of the fire-hydrants, and of the efficiency of the water-tower. The tests were made under the immediate supervision of Assist.-Eng. Dexter Brackett, and the method of conducting the tests was as follows:

All of the tests were made at the Water Department yard on Albany street. The engines tested were connected with and drew their supply from a Post hydrant located in the yard, and connected with the 12-inch main in Albany street by an 8-inch main 240 feet in length.

The water-pressure at the hydrant was about 42 lbs. when the engines were not drawing.

The hydrant has an inside diameter of $6\frac{3}{4}$ inches, with three outlets for hose connection, two of $4\frac{1}{2}$-inch diameter and one of $2\frac{1}{2}$-inch diameter, each outlet having an independent valve.

The steamers were connected with one of the $4\frac{1}{2}$-inch outlets by means of the ordinary 4-inch suction-hose, and with one or two exceptions, of which special mention is made hereafter, all valves on the supply-main and hydrant were kept wide open during the trials.

Frequent pressures were taken by means of a gauge connected with a piezometer which was coupled to the hydrant nozzle and to which the suction-hose was connected.

All water used in the boilers was carefully weighed and the quantity checked by meter measurement. All coal used by each engine was weighed, but no attempt was made to obtain the amount of ashes or unburnt coal. All gauges used were carefully tested by means of a Crosby gauge tester and the readings corrected when necessary. The hose used was new Callahan jacket hose having nominal diameters of $2\frac{1}{2}$ and 3 inches, but the actual inside diameters were 2.65 and 3.30 inches.

The length of hose used during the tests was usually 500 feet for each line except when using the large siamese nozzle, in which case lines 200 feet in length were used. During some of the first tests made the lengths of the lines were 400 feet.

At the Lincoln-street fire the average length of the 71 lines of hose used was 530 feet and at the Tremont Temple fire it was 500 feet.

Standard smooth nozzles were used in all tests, with a single exception, when a test was made to show the comparative efficiency of smooth and ring nozzles. The quantity of water discharged by the steamers was calculated from observations of the pressure, made by means of gauges attached to piezometers at the base of the play pipes using the well-established formula deduced from the experiments of Mr. J. R. Freeman. The experiments of Mr. Freeman, which were made with great care and covering a great variety of patterns of nozzles as well as a large range of pressures, proved that by carefully conducted observations the discharge from any of the standard nozzles can be determined within one-half of one per cent.

Careful measurements were made of the diameters of the nozzles, and in nozzles of the same nominal diameter there was found a variation of .014 of an inch.

The engine tests were conducted in the following manner:

Steam was first raised in the boiler to a pressure at which the engine could do practical service; the fire was then drawn and a new fire started with weighed fuel. As soon as the steam pressure began to rise the engine was started, and run with, as nearly as possible, a uniform steam and water pressure.

Changes in the conditions were made at periods of from fifteen to thirty minutes, either by changing the sizes of the nozzles, the steam pressure, or the length or size of the lines of hose, the object of the tests being to ascertain the quantity of water which each engine was capable of throwing upon a fire in continuous service, and not the quantity which might possibly be discharged through a short line of hose or an open butt for one or two minutes.

Observations of the steam and water pressures at the engine were made every minute, and of the water pressure at the nozzles every thirty seconds. In the tables giving the results of the trials averages of these observations are given.

All coal used under the boilers and all water fed to the boilers were carefully weighed. Pressures were taken on the supply-main at the base of the hydrant, on the 2½-inch outlet of the hydrant and at a piezometer attached to the 4½-inch

outlet with which the suction-pipe from the engine was connected.

These pressures were taken to show the loss of pressure by friction in the hydrant and the available pressure in the steamer suction. In the tests of Engines Nos. 27, D, 36, and 15 pressures were also taken at the suction chamber of the engine.

Calorimetric measurements of the amount of moisture in the steam furnished by the different types of boilers were made on Engines No. 27, No. 15, and No. 23.

Indicator cards were taken from the steam cylinders of Engine D and Engine No. 15.

The number of revolutions made by the engines were electrically recorded by an instrument made by an employee of the Fire Department.

Each revolution of the engine closed a circuit and was recorded on a paper tape. By the use of a stop watch the number of revolutions per minute was easily and accurately determined.

In order to obtain information in regard to the effect of a hydrant supply as compared with drafting, tests were made of Engines No. 43 and No. 36 taking water from a large box which was floated in the dock alongside of the Water Department wharf. The box was supplied with fresh water from a hydrant in the yard.

Tests have been made of Amoskeag engines of four sizes, three sizes of Clapp and Jones engines, and two sizes of engines of the Silsby pattern. These comprise the patterns and sizes of engines which are now in general use by the department.

Table No. 1 gives the general dimensions of these engines, and the statements and tables appended to this report give in detail the results of all the trials.

Table No. 1.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
STYLE OF ENGINE.	Department No.	Maker's No.	When built.	Weight of engine.	Diameter of steam cylinder.	Diameter of pump plunger.	Stroke.	Capacity at 300 calculated revolutions.	Diameter of boiler.	Heating surface in boiler.
				Lbs.	In.	In.	In.	Gals.	In.	Sq. ft.
Amoskeag . .	36	664	1890	6,950	6.136	4.005	8.00	498	31.5	101.
Amoskeag . .	D	619	1886	7,150	6.888	4.249	8.00	562	30.5	85.
Amoskeag . .	14	354	1870	. . . .	7.662	4.40	7.90	594	31.75	74.
Amoskeag . .	27	415	1872	7,085	7.651	4.50	7.89	619	32.0	86.5
Clapp & Jones	43	566	1893	. . . .	6.988	4.376	7.00	525	29.5	86.0
Clapp & Jones	21	567	1893	6,475	6.998	4.375	7.00	524	29.5	86.0
Clapp & Jones	7	531	1890	6,940	8.50	5.00	7.00	691	32.0	112.0
Clapp & Jones	15	2162	1893	7,970	9.005	5.49	8.00	957	35.5	140.5
Silsby	42	2159	1893	. . . .	. . . .	. . . .	. . .	. . . .	32.5	174.
Silsby	23	976	1890	7,625	. . . .	. . . .	. . .	. . . .	36.0	225.
Silsby	33	813	1888	. . . .	. . . .	. . . .	. . .	. . . .	36.0	229.

ENGINE NO. 36.

Calculated capacity at 300 revolutions per minute 498 gallons. Tested November 8, 1893.

The engine was started at 1.14–40 P.M., with steam at 60 lbs.

From 1.14–40 P.M. until 2.29–30 P.M., or 74 minutes 50 seconds, water was forced through two 500-foot lines of hose and discharged through two $1\frac{1}{8}$-inch nozzles. The steam pressure during the greater portion of this time was from 60 to 80 lbs. and the average water pressure at the engine 130.9 lbs., with a discharge of 562 gallons per minute. The engine was shut down for 4 minutes 35 seconds for the purpose of changing the size of nozzles and removing the strainer in the suction-pipe, as there was a loss of from 3 to 4 lbs. pressure between the hydrant and the suction chamber of the pumps. The engine was then run for 42 minutes 35 seconds with a steam pressure of 106.3 lbs., water pressure at the engine 128 lbs. with a discharge of 579 gallons per minute through nozzles $1\frac{1}{4}$-inch and $1\frac{1}{8}$-inch diameters.

After the removal of the suction strainer the pressure in

the suction chamber of the engine was practically the same as at the hydrant. A run of 8 minutes 20 seconds was then made using 500 feet of $2\frac{1}{2}$-inch hose with a $1\frac{1}{4}$-inch discharge nozzle, followed by a run of 16 minutes using the same length of 3-inch hose with a $1\frac{1}{4}$-inch nozzle.

During the first run with a water pressure of 244.5 lbs. at the engine the average water pressure at the nozzle was 82.5 lbs., while during the second run the water pressure at the engine was about 40 lbs. less, but 14 lbs. more at the nozzle.

The engine was then stopped, the fire drawn, and the size of the two exhaust pipes reduced from $1\frac{1}{8}$-inch to $\frac{15}{16}$-inch diameters by plugging with wedges. The engine was again started at 3.58 P.M., pumping through two lines 500 feet of $2\frac{1}{2}$-inch hose connected by a siamese coupling with a $1\frac{1}{2}$-inch nozzle.

Under these conditions a water pressure of 147 lbs. at the engine was maintained for 9 minutes 15 seconds discharging 564 gallons per minute. The $1\frac{1}{2}$-inch nozzle was then replaced by two nozzles, $1\frac{1}{4}$-inch and $1\frac{1}{8}$-inch diameters, and the engine run for 17 minutes 30 seconds with a water pressure of 136.4 lbs. at the engine discharging 596 gallons per minute.

On November 14th a second trial of this engine was made, drafting the water, with a lift of from 10 to 12.5 feet instead of taking the supply from the hydrant under a pressure of 35 lbs.

For 62 minutes 20 seconds water was thrown from two $1\frac{1}{8}$-inch nozzles through 500-foot lines of hose, with an average steam pressure of 90 lbs., water pressure at the engine 111.4 lbs., at the nozzles 46.2 lbs., with a discharge of 512 gallons per minute.

A $1\frac{1}{4}$-inch nozzle was then substituted for one of the $1\frac{1}{8}$-inch nozzles and the engine run for 28 minutes, giving an average steam pressure of 78.5 lbs., water pressure at the engine 110.8 lbs., and at the nozzles 35 and 46 lbs., with a discharge of 512 gallons per minute. With two lines siamesed using a $1\frac{1}{2}$-inch nozzle a discharge of 575 gallons per minute was maintained for 9 minutes with a nozzle pressure of 65.7 lbs.

A comparison of the two tests of this engine seems to indicate that with the same steam pressure the water pressure at the engine will vary directly as the hydrant or supply pressure is increased or diminished.

On the first trial the openings through the grate were so large that a large quantity of coal was wasted and grates with smaller spaces between the bars were substituted before the second trial.

ENGINE RELIEF D.

Calculated capacity at 300 revolutions per minute 562 gallons. Tested November 6, 1893.

The engine was started at 1.23–40 P.M., and after running 4 minutes with one 500-foot line of $2\frac{1}{2}$-inch hose with a $1\frac{1}{4}$-inch nozzle a second 500-foot line with a $1\frac{1}{8}$-inch nozzle was added, and with the exception of one minute when one line was shut off to stop a leak at a coupling these conditions were continued for 89 minutes 20 seconds with an average steam pressure of 77.5 lbs., water pressure at engine 118.3 lbs., and water pressures at nozzles 39 and 51.2 lbs., with a discharge of 561 gallons per minute.

Three-inch hose was then substituted for $2\frac{1}{2}$-inch hose on one of the lines and a run of $18\frac{1}{2}$ minutes was made, using a $1\frac{1}{4}$-inch nozzle on the 3-inch line and a $1\frac{1}{8}$-inch nozzle on the $2\frac{1}{2}$-inch line.

The 3-inch hose with the larger size nozzle gave the larger nozzle pressure and a discharge about 30 per cent greater than the same length of $2\frac{1}{2}$-inch hose. From 3.16 to 3.26 P.M. the nozzle on the $2\frac{1}{2}$-inch hose gave the larger pressure, probably caused by the partial closing of a valve on the discharge of the 3-inch line. With a $1\frac{1}{2}$-inch nozzle connected with a single line of 3-inch hose 500 feet in length the discharge was about 478 gallons, while the same nozzle siamesed from two 500-foot lines of $2\frac{1}{2}$-inch hose gave a discharge of 533 gallons per minute.

With two 200-foot lines siamesed into a $1\frac{3}{4}$-inch nozzle a discharge of 674 gallons per minute, with a nozzle pressure of 51.7 lbs., was maintained for 8 minutes 5 seconds.

Indicator cards showing the pressure in the steam cylinders were taken at intervals of about 10 minutes, and from these observations the following results have been deduced.

Time. P.M.	Revs. per min.	Total indicated horse power.	Horse power, pump measurement.	Per cent of indicated horse power.
1.35	312	29.35	26.0	88.6
1.45	324	35.00	29.8	85.2
1.55	318	34.26	30.0	87.5
2.15	306	29.71	25.8	87.0
2.25	303	28.88	24.9	86.3
2.35	318	32.12	28.6	89.0
2.43	350	42.43	26.1	61.5
2.49	324	34.90	30.5	87.5
3.14	322	26.50	25.8	97.3
3.39	260	38.99	33.6	86.2
4.00	306	34.24	32.5	95.0

Engine No. 14.

Calculated capacity at 300 revolutions per minute 594 gallons. Tested October 25, 1893.

From 1.15 to 1.52–30 P.M., or for 37 minutes 10 seconds, two lines of $2\frac{1}{2}$-inch hose each 400 feet in length, with $1\frac{1}{8}$-inch nozzles, were used, with an average steam pressure of 79.2 lbs., average water pressure at the engine 108.5 lbs., and at the nozzles 46.5 lbs., giving a discharge of 512 gallons per minute. By closing a gate on the supply main the pressure at the hydrant was reduced from 38 to 18 lbs. for 12 minutes with a reduction of 5 lbs. in the boiler pressure, and the water pressure at the engine was reduced 16 lbs.

A run of 52 minutes was then made using two 400-foot lines of hose, with nozzles $1\frac{1}{4}$ and $1\frac{1}{8}$ inches in diameter.

Under these conditions the average steam pressure was 78.3 lbs., water pressure at the engine 104.8 lbs., and the discharge 528 gallons per minute. With a single line of hose 600 feet in length, with a $1\frac{1}{4}$-inch nozzle, 325 gallons per minute were discharged. Two 500-foot lines of $2\frac{1}{2}$-inch hose with siamese coupling and a $1\frac{1}{2}$-inch nozzle gave a pressure of 45 to 49 lbs. at the nozzle and a discharge of about 490 gallons per minute.

Using two 200-foot lines of $2\frac{1}{2}$-inch hose with a $1\frac{3}{4}$-inch nozzle, a discharge of between 575 and 600 gallons per minute was maintained for a short time, but the steam pressure could not be maintained while running at this speed.

Engine No. 27.

Calculated capacity at 300 revolutions per minute 619 gallons. Tested October 24, 1893.

The test was commenced at 1.23–30 P.M., using $1\frac{1}{4}$ and $1\frac{1}{8}$ inch nozzles with 500-foot lines of $2\frac{1}{2}$-inch hose.

These conditions were maintained for $41\frac{1}{2}$ minutes, the average steam pressure during this time being 62.7 lbs., the water pressure at the engine 110.3 lbs., and at the nozzles 34 and 43.2 lbs., with a discharge of 520 gallons per minute. A run of $37\frac{1}{2}$ minutes was then made with the same lengths of hose and two $1\frac{1}{8}$-inch nozzles. Trouble was experienced in maintaining the steam pressure, and at 2.42–45 P.M. the engine was stopped for $6\frac{3}{4}$ minutes for the purpose of cleaning the fire.

The engine was then run for $55\frac{3}{4}$ minutes, pumping through a single line of hose with a $1\frac{1}{4}$-inch nozzle. Under these conditions the average steam pressure was 79.8 lbs.,

the water pressure at the engine 187.7 lbs., at the nozzle 57.7 lbs., with a discharge of 356 gallons per minute. Two trials were then made using a $1\frac{3}{4}$-inch nozzle siamesed from two 200-foot lines of $2\frac{1}{2}$-inch hose.

In both instances a discharge of 600 gallons per minute was maintained for a few minutes, but the steam pressure could not be maintained. As in the case of Engine No. 23, tested October 30, an examination showed that there were leaks around the tubes in the upper head of the boiler which cut off the draft.

These were repaired and a second test was made on November 3, 1893.

Second test of Engine 27.

The engine was started at 1.06 P.M. After pumping for $19\frac{1}{2}$ minutes through two 500-foot lines of $2\frac{1}{2}$-inch hose with $1\frac{1}{8}$-inch nozzles discharging during the last $16\frac{1}{2}$ minutes 587 gallons per minute, a $1\frac{1}{4}$-inch nozzle was substituted on one of the lines, and these conditions were maintained for an hour.

At 2.12 P.M. a change was made in the fireman, and in 12 minutes the pressure of steam dropped from 85 lbs. to 30 lbs., necessitating the shutting off of one of the lines for 4 minutes.

Fireman No. 1 took charge of the fire and ran until 2.41 P.M.

At 2.39–30 P.M. $1\frac{1}{4}$-inch nozzles were placed on both lines.

After 2.41 P.M., Fireman No. 2 being in charge of the boiler, the steam pressure dropped from 80 to 20 lbs. in 9 minutes and the engine was shut down. A change was again made in the fireman, and from 2.51–15 to 3.08–50 P.M. the average steam pressure was 104.7 lbs., the water pressure at the engine being 134 lbs., at the nozzles 40.7 lbs., with a discharge of 596 gallons per minute.

Three-inch hose was then substituted for $2\frac{1}{2}$-inch in one line, and a test was made which well illustrates the benefit derived from the use of the larger-sized hose. With hose of the same length and nozzles of the same diameter the pressure at the nozzle of the 3-inch hose was 15.7 lbs. greater than at the nozzle of the $2\frac{1}{2}$-inch line, and the discharge was about 20 per cent. greater.

This test was followed by a run of $16\frac{1}{3}$ minutes, using a $1\frac{1}{2}$-inch nozzle siamesed from two 500-foot lines of $2\frac{1}{2}$-inch hose.

During this time 566 gallons per minute were discharged, and an average steam pressure of 75.5 lbs. was maintained.

With a nozzle $1\frac{3}{4}$ inches in diameter connected with two 200-foot lines of $2\frac{1}{2}$-inch hose a discharge of 700 gallons per minute was maintained for about 12 minutes, but the boiler would not continue to supply steam in sufficient quantity to maintain the speed required, which was from 340 to 360 revolutions per minute.

Calorimetric tests of the amount of moisture in the steam, made during the first trial of this engine, gave an average of 1.63 per cent. moisture.

Engine No. 43.

Calculated capacity at 300 revolutions per minute 525 gallons. Tested October 20, 1893.

The engine was started at 12.54 P.M., using two 400-foot lines of $2\frac{1}{2}$-inch hose with $1\frac{1}{8}$-inch nozzles. At 1 P.M. a piezometer coupling attached to the discharge outlet on the steamer blew off and 4 minutes were lost in reconnecting hose.

The engine was then run for 48 minutes with a steam pressure of 73.2 lbs., with water pressure at the engine of 115.7 lbs., and at the nozzles 54.7 lbs. With the same lengths of hose and $1\frac{1}{4}$-inch and $1\frac{1}{8}$-inch nozzles a run of about an hour was then made.

The lengths of the lines of hose was then increased from 400 to 500 feet and two $1\frac{1}{8}$-inch nozzles used for 26 minutes 50 seconds, giving an average steam pressure of 75.2 lbs., water pressure at the engine 122.5 lbs., and at the nozzles 50.7 lbs., equal to a discharge of 536 gallons per minute. The test was finished with a run of 24 minutes using a $1\frac{1}{4}$-inch ring nozzle on one line and a $1\frac{1}{8}$-inch smooth nozzle on the other. In this case the smaller nozzle discharged the greater quantity of water, although the nozzle pressure was greater at the ring than at the smooth nozzle.

On November 16th a test was made to determine the capacity of this engine when drafting from a tank. The water was raised from 12.5 to 13.5 feet and delivered through 500-foot lines of hose. Nozzles $1\frac{1}{8}$ inches in diameter were used during the run of 26 minutes 10 seconds, interrupted for 2 minutes 10 seconds by the breaking of an oil-cup connection on the steam-pipe.

During the first half of the run the steam pressure was 98.2 lbs., the water pressure at the engine 93.1 lbs., and at the nozzles 38.5 lbs., while during the latter portion of the run the steam pressure was 87.5 lbs., the water pressure at the engine 87.1 lbs., and at the nozzles 33.5 lbs.

During the above tests the engine did not work smoothly

nor efficiently, and it was discovered that air was leaking into the suction through the relief valve. After this had been stopped a 16-minute test was made with the same nozzles and lengths of hose, and with a steam pressure of 109.3 lbs., the water pressure at the engine was 116.5 lbs., and at the nozzles 47.2 lbs., discharging 517 gallons per minute. With nozzles $1\frac{1}{4}$ inch and $1\frac{1}{8}$ inch in diameter the results were as follows: average steam pressure 105.9 lbs., water pressure at the engine 112.4 lbs., at the nozzles 37.5 and 48.2 lbs., discharging 547 gallons per minute.

With 1,000 feet of $2\frac{1}{2}$-inch hose and a $1\frac{1}{8}$-inch nozzle 60.2 lbs. nozzle pressure was given, with a water pressure of 215.7 lbs. at the engine. With the same length of hose and a $1\frac{1}{4}$-inch nozzle, the nozzle pressure was 43 lbs. and the discharge 308 gallons per minute.

ENGINE NO. 21.

Calculated capacity at 300 revolutions per minute 524 gallons. Tested November 9, 1893.

This engine is a duplicate of Engine No. 43. The first test was made with two lines of $2\frac{1}{2}$-inch hose each 500 feet in length, with nozzles $1\frac{1}{4}$ and $1\frac{1}{8}$ inches in diameter. For a few minutes a steam pressure of 100 lbs. was maintained, but it fell rapidly, and after a run of $14\frac{1}{4}$ minutes one line was shut off for 3 minutes in order to raise the steam pressure. The second line was again let on and for 48 minutes 35 seconds the average steam pressure was 89.4 lbs., the water pressure at the engine 124.7 lbs., with a discharge of 575 gallons per minute. Two $1\frac{1}{8}$ inch nozzles were then used for 41 minutes, the average steam pressure being 90.7 lbs., the water pressure at the engine 140.2 lbs., at the nozzles 60 lbs., with a discharge of 582 gallons per minute. A second trial of 24 minutes 10 seconds, using $1\frac{1}{4}$-inch and $1\frac{1}{8}$-inch nozzles, was then made, during which a very uniform steam pressure of 112 lbs. was maintained, giving a water pressure at the engine of 138 lbs. and a discharge of 607 gallons per minute. Three short runs were made using a $1\frac{1}{4}$-inch nozzle; in the first case $2\frac{1}{2}$-inch hose was used, in the second trial 3-inch hose fitted with a bushing of the size of $2\frac{1}{2}$-inch couplings, in the third test 3-inch hose with 3-inch couplings.

The tests resulted as follows:

	Steam pressure in boiler. Lbs.	Water pressure at engine. Lbs.	Water pressure at nozzle. Lbs.	Discharge per minute. Gallons.
$2\frac{1}{2}$-inch hose	107.9	221.4	75.5	407
3 " " $2\frac{1}{2}$-inch couplings .	114.9	219.5	101 5	472
3 " " 3 " " .	118.8	217.5	105.0	479

With two 500-foot lines of $2\frac{1}{2}$-inch hose siamesed into a $1\frac{1}{2}$-inch nozzle the average steam pressure during a run of 11 minutes 25 seconds was 102.3 lbs.. the water pressure at the engine being 152.8 lbs., and at the nozzle 68 lbs , with a discharge of 576 gallons per minute.

Engine No. 7.

Calculated capacity at 300 revolutions per minute 691 gallons. Tested October 19, 1893.

The engine was started at 1.26-20 P.M. and run until 2 P.M. with a steam pressure of 51 lbs., water pressure at the engine 98.4 lbs., using two 400-foot lines of hose with $1\frac{1}{8}$-inch nozzles.

The steam pressure was then raised to 70 lbs., and with the same conditions of hose and nozzles for 19 minutes the water pressure at the engine was 124.2 lbs., and at the nozzles 57 lbs.

A $1\frac{1}{4}$-inch nozzle was substituted on one line, and during a period of 24 minutes, with steam at 65.2 lbs., the water pressure was 119.6 lbs. at the engine and the discharge was 581 gallons per minute.

The steam pressure was then raised to 85 lbs., and for 45 minutes an average water pressure of 147 lbs. was maintained at the engine, giving a discharge of 640 gallons per minute.

With a $1\frac{3}{4}$-inch nozzle, using two 200-foot lines of $2\frac{1}{2}$-inch hose, a discharge of 725 gallons per minute was maintained for 9 minutes, and with a 2-inch nozzle the discharge for 12 minutes was at the rate of 697 gallons per minute.

Engine No. 15.

Calculated capacity at 300 revolutions per minute 957 gallons. Tested November 13, 1893.

This engine is a type of the largest capacity engines in use in the city. During the first test of 64 minutes 10 seconds' duration three 500-foot lines of hose were used, two of them $2\frac{1}{2}$ inches in diameter with $1\frac{1}{8}$-inch nozzles, and one 3 inches in diameter with $1\frac{1}{4}$-inch nozzle.

With a steam pressure of 107.4 lbs., pressures of 53.5 lbs. were obtained at the $1\frac{1}{8}$-inch nozzles and 55.7 lbs. at the $1\frac{1}{4}$-inch nozzle, giving a total discharge of 900 gallons per minute.

The engine was shut down for 26 minutes to repair a broken boiler feed-pipe. Four lines were then attached, and with three $1\frac{1}{8}$-inch nozzles and one $1\frac{1}{4}$-inch nozzle the dis-

charge was 978 gallons per minute. With three 200-foot lines of $2\frac{1}{2}$ hose siamesed into a $1\frac{3}{4}$-inch nozzle, and a 500-foot line of 3-inch hose supplying a $1\frac{1}{8}$-inch nozzle, the average steam pressure for 11 minutes 50 seconds was 98.2 lbs., with the water pressure at the engine 96.6 lbs., giving a discharge of 1,022 gallons per minute.

Three 200-foot lines of $2\frac{1}{2}$-inch hose and one 450-foot line of 3-inch hose siamesed into a 2-inch nozzle gave for $12\frac{1}{2}$ minutes, with a steam pressure of 95.3 lbs., a discharge of 989 gallons per minute. Indicator cards showing the pressure in the steam cylinders were taken at frequent intervals, from which the horse power developed has been calculated.

Time. P.M.	Revolutions per minute.	Total indicated horse power.	Horse power, pump measurement.	Per cent. of indicated horse power.
1.38	294	84.86	64.9	76.5
1.48	300	84.15	60.9	72.4
1.57	304	85.88	60.9	70.9
2.05	294	Missed		
2.20	262	59.75	41.2	69.0
2.27	294	83.21	57.8	69.4
3.00	315	61.68	40.2	65.1
3.09	326	79.46	47.7	60.0
3.14	348	85.05	47.6	56.0
3.21	336	85.98	53.2	61.9
3.27	330	59.41	43.9	74.0
3.45	346	83.90	54.4	64.9
3.50	334	74.55	46.3	62.2
4.10	332	84.31	56.0	66.4

Calorimetric tests of the amount of moisture in the steam gave an average of 1.80 per cent. moisture.

ENGINE NO. 42.

Tested October 26, 1893.

For about one hour water was discharged from two $1\frac{1}{8}$-inch nozzles, using 400-foot lines of $2\frac{1}{2}$-inch hose.

The averages for $50\frac{1}{2}$ minutes were: steam pressure 78.9 lbs., water pressure at engine 101.6 lbs., at the nozzles 46.5 lbs., with a discharge of 515 gallons per minute. Substituting a $1\frac{1}{4}$-inch nozzle on one line a run of 37 minutes 50 seconds, with an average steam pressure of 74.5 lbs., gave a water pressure at the engine of 102.2 lbs., at the nozzles 38.0 and 48.5 lbs., with a discharge of 550 gallons per minute. With a 500-foot line of 3-inch hose with a $1\frac{1}{4}$-inch nozzle the water pressure at the engine for $9\frac{1}{3}$ minutes was

86.4 lbs., at the nozzle the pressure was 71 lbs., and the discharge 395 gallons per minute. With $1\frac{1}{8}$-inch nozzles, the same sizes used during the first test, but with one 3-inch and one $2\frac{1}{2}$-inch line of hose, the lines being 100 feet longer than before, a 12-minute run gave an average steam pressure of 71.2 lbs., water pressure at engine 96.8 lbs., and a discharge of 502 gallons per minute.

Using a $1\frac{1}{2}$-inch nozzle with 500 feet of 3-inch hose 441 gallons per minute were discharged with a nozzle pressure of 40 lbs.

With 500 feet of $2\frac{1}{2}$-inch hose and a $1\frac{1}{4}$-inch nozzle the pressure at the nozzle was 48.5 lbs., giving a discharge of 327 gallons per minute for 10 minutes. With the same length of 3-inch hose with same pressure at the engine the discharge was about 30 per cent. greater and the nozzle pressure 20 lbs. more.

The test concluded with a run of 11 minutes, using one 500-foot line of $2\frac{1}{2}$-inch hose with a $1\frac{1}{8}$-inch nozzle, and one 500-foot line of 3-inch hose with a $1\frac{1}{4}$-inch nozzle, and in this case the pressure at the $1\frac{1}{4}$-inch nozzle was 4.5 lbs. larger and the discharge 30 per cent. more than from the $2\frac{1}{2}$-inch hose.

Engine No. 23.

Tested October 30, 1893.

The first run was made using 500-foot lines of hose and $1\frac{1}{8}$-inch nozzles. For $27\frac{1}{2}$ minutes the average steam pressure was 72.8 lbs., water pressure at the engine 104.0 lbs., and at the nozzles 41.5 lbs., with a discharge of 484 gallons per minute.

Run No. 2 with the same lines of hose, but with $1\frac{1}{4}$-inch and $1\frac{1}{8}$-inch nozzles, gave for 37 minutes an average steam pressure of 55.2 lbs., water pressure at engine 86.4 lbs., nozzle pressures of 27.5 and 32.75 lbs., and a discharge of 460 gallons per minute.

During this run difficulty was experienced in maintaining the steam pressure, and at 2.26 P.M. one line of hose was shut off and for about 30 minutes one 500-foot line of $2\frac{1}{2}$-inch hose was used with $1\frac{1}{4}$-inch nozzle. For $14\frac{1}{2}$ minutes of this time the average steam pressure was 53.0 lbs., water pressure at the engine 124.1 lbs., water pressure at the nozzle 39.75 lbs., and for the last $12\frac{1}{2}$ minutes the average steam pressure was 65.4 lbs., water pressure at the engine 157.4 lbs., and at the nozzle 51.25 lbs.

Another attempt was made to use two lines with $1\frac{1}{4}$ and $1\frac{1}{8}$ inch nozzles, but in 10 minutes the steam pressure dropped from 70 to 35 lbs., and the engine was shut down

and the fire drawn from under the boiler. After washing out the tubes a new fire was built and another attempt made to run the engine under the same conditions, but the steam pressure could not be maintained above 60 lbs., and after running for 40 minutes the trial was ended.

An examination and water-pressure test of the boiler made after the trial showed that there were leaks around the tubes in the upper head of the boiler. These leaks cut off the draft so that steam could not be made in sufficient quantity.

These leaks were repaired and a second trial was made on November 1.

2d Test of Engine 23.

Two 500-foot lines of $2\frac{1}{2}$-inch hose with nozzles $1\frac{1}{8}$ inch and $1\frac{1}{4}$ inch in diameter were used. The engine ran for 49 minutes, when it was disabled by the breaking of a small tooth in one of the rotary cams in the steam cylinder. During a period of $43\frac{1}{2}$ minutes the average steam pressure was 91.4 lbs., water pressure at the engine 136.6 lbs., and the discharge 590 gallons per minute. With the same conditions of hose and nozzles the steam pressure was from 35 to 40 lbs. more than could be obtained at the previous trial.

ENGINE NO. 33.

Tested October 31, 1893.

This engine was a duplicate of Engine No. 23. For 4 minutes 40 seconds two 500-foot lines of $2\frac{1}{2}$-inch hose with $1\frac{1}{8}$-inch nozzles were used. The average steam pressure being 88.4 lbs., water pressure at engine 139.69 lbs., and at the nozzles 60 lbs., discharging 582 gallons per minute. A $1\frac{1}{4}$-inch nozzle was then substituted on one line and for 21 minutes, with the average steam pressure at 79.7 lbs., the water pressure at the engine was 141.1 lbs. and the discharge 612 gallons per minute.

With 500-foot lines of hose and two $1\frac{1}{4}$-inch nozzles an average steam pressure of 70.7 lbs. was kept up for $41\frac{1}{2}$ minutes, giving a water pressure of 127.6 lbs. at the engine and 42.5 lbs. at the nozzles, with a discharge of 611 gallons per minute. At 2.27–30 P.M. a coupling on the pump relief pipe broke and the test was interrupted for $17\frac{1}{2}$ minutes while temporary repairs were being made. A run of 17 minutes 20 seconds was then made with hose and nozzles the same as before the accident, the average steam pressure being 78.9 lbs., water pressure at the engine 120.2 lbs., at the nozzles 40.2 lbs., with a discharge of 594 gallons per minute.

Three-inch hose was then substituted for $2\frac{1}{2}$-inch on one line

and for $19\frac{1}{2}$ minutes the average steam pressure was 82.6 lbs., the water pressure at the engine 124.5 lbs. Although the nozzles were of the same size the gauge upon one showed a pressure 14.5 lbs. larger than the other and a discharge of 14 per cent. greater in favor of the 3-inch hose.

At 3.27–30 P.M. the engine suddenly stopped while running at the rate of about 800 revolutions per minute, and on examination two of the teeth of the rotary steam-cam were found to be broken in a similar manner to those of Engine No. 23.

Test of the Water-Tower.

A test of the Hale Water-Tower was made on November 17, water being supplied to the tower by Engines 15, 43, and Relief D.

Water pressures were taken at the steamers, at piezometers attached to the hose connections on the tower, at a gauge connected with the supply-pipe at the base of the tower and at the nozzle.

In order to make the nozzle gauge accessible for taking the pressures, the tower was not raised, and in actual service the pressures at the base of the tower and at the steamers would be about 25 lbs. more than the figures given in the tables in order to obtain the same effective pressures at the nozzle.

The trial developed the fact that there was a great loss of pressure due to the friction through the $3\frac{1}{2}$-inch hose between the base of the tower and the nozzle. With a 2-inch nozzle discharging 1,000 gallons per minute with a pressure of 57 lbs. at the nozzle a pressure of 107 lbs. was required at the base of the tower, and in some instances there was a friction loss of 80 lbs. between the base of the tower and the nozzle.

Under these conditions an excessive pressure was required at the engines to give effective pressures at the tower nozzle.

If we assume two engines each connected to the tower by two 300-foot lines of $2\frac{1}{2}$-inch hose, a water pressure of 100 lbs. at the engines would give a pressure of but 30 lbs. on the 2-inch nozzle with the tower raised, and a discharge of 725 gallons per minute.

With a $1\frac{3}{4}$-inch nozzle the pressure would be about 40 lbs., with a discharge of 625 gallons per minute.

An experiment was made to show the effect of connecting one line from a steamer to the tower with a second line supplying a $1\frac{1}{4}$-inch nozzle. The small differences between the pressures at the steamer and the piezometer connections

at the tower show that the greater part of the amount pumped by the steamer was discharged from the $1\frac{1}{4}$-inch nozzle.

Changes are now being made in the tower to increase its efficiency, and it is proposed to make a second test after the improvements have been made.

The accompanying table gives the details of the test made on November 17.

CAPACITY OF HYDRANTS.

During all the tests, except when drafting, the engines were attached to a Post hydrant which was located at the end of an 8-inch pipe, 240 feet long, connected with a 12-inch main in Albany street.

The hydrant, as before described, had an inside diameter of $6\frac{3}{4}$ inches, a 6-inch rubber valve, and three outlets for hose connections, each controlled by an independent valve. Two of these outlets were $4\frac{1}{2}$ inches, the other $2\frac{1}{2}$ inches in diameter.

Pressures were taken on the 8-inch pipe at the base of the hydrant and on a piezometer attached to the steamer suction, in order to determine the loss of pressure in passing through the hydrant.

These experiments show that the friction loss in the hydrant was 4 lbs. for a discharge of 500 gallons per minute and 16 lbs. for a discharge of 1,000 gallons, also that a large proportion of the total loss is in the outlet valve.

During the trial of the water-tower, all three of the engines used were for a portion of the time connected with this Post hydrant, and the lowest pressure taken at the piezometer coupling was 20 lbs., showing that hydrants of this pattern will furnish an ample supply for three steamers. Owing to the lateness of the season, the experiments on the capacity of hydrants were not completed and no tests were made of the friction loss in the $2\frac{1}{2}$-inch reducers which are used on the engine suctions.

FRICTION IN HOSE.

The experiments were not conducted with special reference to obtaining information on this point, but in general they confirm the more careful experiments made by Mr. John R. Freeman and reported in a paper presented by him to the American Society of Civil Engineers.

Experiments were, however, made to show the comparative value of $2\frac{1}{2}$-inch and 3-inch hose and the effect of using $2\frac{1}{2}$-inch couplings on the 3-inch hose.

Table showing the comparative efficiency of $2\frac{1}{2}$-inch and 3-inch hose. Lines in all cases 500 feet in length.

Number of experiment.	Diameter of discharge nozzles.	Water pressures in lbs. At steamer.	At nozzle. 3-in. hose.	At nozzle. $2\frac{1}{2}$-in. hose.	Discharge in gallons. 3-in. hose.	Discharge in gallons. $2\frac{1}{2}$-in. hose.
1	$1\frac{1}{4}$ in.	128.1	55.0	39.2	347	293
2	$1\frac{1}{4}$ in.	124.5	57.5	43.0	355	307
3	$1\frac{1}{8}$ in.	96.8	50.7	38.5	268	234
4	$1\frac{1}{4}$ in. $1\frac{1}{8}$ in.	110.9	44.0	44.5	311	251
5	$1\frac{1}{4}$ in. $1\frac{1}{8}$ in.	90.4	41.2	36.7	301	228
6	$1\frac{1}{4}$ in.	217.5	105.0	....	479	3-in. hose. 3-in. couplings.
7	$1\frac{1}{4}$ in.	221.4	....	75.5	407	
8	$1\frac{1}{4}$ in.	219.5	101.5	....	472	3-in. hose. $2\frac{1}{2}$-in. couplings.
9	$1\frac{1}{4}$ in.	204.0	96.5	....	460	
10	$1\frac{1}{4}$ in.	158.6	71.0	....	395	
11	$1\frac{1}{4}$ in.	151.6	68.2	....	387	
12	$1\frac{1}{4}$ in.	224.0	....	74.7	....	405
13	$1\frac{1}{4}$ in.	157.4	....	51.2	....	335
14	$1\frac{1}{4}$ in.	151.1	....	48.7	....	327
15	$1\frac{1}{4}$ in.	124.1	....	39.7	....	295

In the first three experiments given in the above table, two lines of hose each 500 feet in length were attached to a steamer, and nozzles of the same diameter attached to each line.

With the same pressure at the steamer, the pressures at the nozzles on the 3-inch lines of hose were from 12 to 15 lbs. greater than on the $2\frac{1}{2}$-inch lines. In the fourth and fifth experiments, $1\frac{1}{4}$-inch nozzles were used on the 3-inch hose and $1\frac{1}{8}$-inch nozzles on the $2\frac{1}{2}$-inch. It will be noticed that the effective pressure at the $1\frac{1}{4}$-inch nozzle on the 3-inch hose was as large as at the $1\frac{1}{8}$-inch nozzle on the $2\frac{1}{2}$-inch hose, while the discharge from the nozzles on the 3-inch hose was between 20 and 25 per cent. more.

A comparison of experiments 6 and 8 shows the effect of using $2\frac{1}{2}$-inch couplings on 3-inch hose, and it will be noticed that with the same pressure at the engine, the nozzle pressure is about 5 lbs. less when using the $2\frac{1}{2}$-inch couplings, or for a 500-foot line of hose about $\frac{1}{2}$ lb. loss at each $2\frac{1}{2}$-inch coupling when discharging 475 gallons per minute.

The loss of pressure per 100 feet in the different sizes of hose is approximately as follows:

	250 gallons per minute.	300 gallons per minute.
$2\frac{1}{2}$-in. hose	13 lbs.	18 lbs.
3-in. hose, $2\frac{1}{2}$-in. couplings .	8 lbs.	10.7 lbs.
3-in. hose, 3-in couplings .	8 lbs.	10.5 lbs.

The advantage of using 3-inch hose is illustrated by the following example: with a steamer using a line of hose 600 feet in length, with a $1\frac{1}{4}$-inch smooth nozzle discharging 300 gallons per minute, a quantity none too large for the needs of the present fire-service, a water pressure of 150 lbs. at the steamer would be required if $2\frac{1}{2}$-inch hose were used, while with 3-inch hose the same results would be attained with a pressure of 105 lbs. at the steamer.

The advantage of the use of $2\frac{1}{2}$-inch couplings would be that no time would be lost in attaching reducing couplings or in finding hose of the needed size, while the loss of pressure due to the $2\frac{1}{2}$-inch couplings would be insignificant in ordinary use.

Without doubt the 3-inch hose is not so easily handled on ladders or in buildings, but great benefit could be derived by using from 300 to 500 feet of 3-inch hose from the steamer, with one or two lengths of $2\frac{1}{2}$-inch hose attached for the hoseman's use.

GENERAL RESULTS AND CONCLUSIONS.

The following tables, condensed from the tables giving the details of the tests, show, in a convenient form, the results obtainable from the different steamers tested.

Table No. 2 gives the length of the trials, average steam and water pressure at the engine, the quantities pumped, coal used, water evaporated, etc.

Table No. 3 gives the results obtained by each engine under different conditions of steam pressure, length of hose, diameter of nozzles, etc., with the time during which the engine was operated under those conditions.

It will be seen from an inspection of column 9 of Table No. 2 and column 4 of Table No. 3, that engines Nos. 36, D, 21, 43, and 15 equalled or exceeded their calculated capacity at 300 revolutions per minute for runs of from 35 to 89 minutes, and that the average amount pumped per minute by Engines 21, 36, and 43, for the whole time while the pumps were working, was in excess of their calculated capacity.

The tests also show that the smallest-size engines in use in the department are capable of delivering through 500-foot lines of hose two good fire streams, and that the large-size Clapp & Jones engines will deliver from 900 to 975 gallons per minute, equal to three good $1\frac{1}{4}$-inch streams.

It must be remembered that in all cases the engines tested drew their water-supply from a hydrant under a pressure of from 30 to 40 lbs., and that the steamers of the

same class would not be able to deliver as powerful streams if obliged to draft their supply.

This statement is verified by the results of tests of Engines 36 and 43.

I wish to call your attention to the desirability of using two lines of hose with siamese connections in cases where the steamers are so located that lines more than 500 feet in length are required to reach a fire, or where very powerful streams are needed.

Take the case of Engines 36 or 21, the smallest size in use by the department, with a single line of $2\frac{1}{2}$-inch hose 800 feet long, a water pressure of 150 lbs. at the engine would give, with a $1\frac{1}{4}$-inch nozzle, a pressure of but 30 lbs. at the nozzle, while the same engine pressure, using two lines of the same length siamesed into a 50-foot line with a $1\frac{3}{8}$-inch nozzle, a nozzle pressure of 55 lbs. would be obtained. In the first case, the discharge would be about 250 gallons per minute, and the stream would not be effective above the third story, while in the latter case a stream discharging 425 gallons per minute would be available 80 feet above the ground.

The results given in regard to the coal burned and water evaporated by the boilers confirms what was noticed during the trials, viz., that steam was more easily made and maintained by the Clapp & Jones boilers than by those of the Amoskeag engines.

The evaporation per pound of coal from and at 212 degrees varied from 2.26 lbs. in the case of Engine No. 36 to 5.87 lbs. for Engine No. 43.

The slip, or loss through the valves and pistons of the pumps, varied from 3 to 8 per cent. of the calculated displacement of the pump plungers.

Engines Nos. 36 and 43 showed a loss of about 5 per cent. when taking their supply from the hydrant, and 8 per cent. when drafting.

The question is sometimes raised as to whether the supply of water at the hydrants is sufficient for the supply of the steamers.

It seems to me that the engineers would have more positive information on this point, if a combined pressure and vacuum gauge were attached to the suction chamber of all engines. This plan has been adopted in Detroit with good results.

The statements, which have been made on a previous page, in regard to the advantages of using 3-inch hose, are applicable in the consideration of the desirability of placing 3 or 4 inch iron stand-pipes on the outside of all high buildings for the use of the Fire Department.

A considerable number of these pipes have been placed upon buildings by property owners, but they are not under the control of the Fire Department, are sometimes not furnished with proper hose connections, often are not put up in connection with fire-escapes, and are not as efficient an aid to the department as they should be.

These stand-pipes should be erected under the supervision, and be placed under the inspection and control, of the Fire Department.

The appended tables give full details of the experiments, and, as much care was taken to avoid errors in the observations, it is thought that they will have much value for the purpose of comparison with future records of a similar character.

I desire to extend my thanks to the members of the Fire Department, who have given me many valuable suggestions and great assistance during the progress of the trials.

Yours respectfully,

WILLIAM JACKSON,
City Engineer.

HALE WATER TOWER, NO. 2. TESTED NOVEMBER 17, 1893.

Experiment Began.			Experiment Ended.			Elapsed Time.			Pressure on Lowry Hydrant supplying Engine D.	Pressure on Post Hydrant supplying Engine No. 43.	Pressure on Post Pitcrometer, Engine No. 43.	Engine No. 18. Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 1. Length of 2½ in. Hose.	Line No. 1. Pressure at Outlet.	Line No. 2. Length of 2½ in. Hose.	Line No. 2. Pressure at Outlet.	Line No. 3. Length of 2½ in. Hose.	Line No. 3. Pressure at Outlet.	Line No. 4. Length of 2½ in. Hose.	Line No. 4. Pressure at Outlet.
H.	Min.	Sec.	H.	Min.	Sec.	Min.	Sec.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Feet	Lbs.	Feet.	Lbs.	Feet.	Lbs.
10	42										22.0										
10	44	30	10	47	10	2	40				115.5	102.6		200	63.5					200	68.2
10	47	10	10	49		1	50														
10	49		10	54		5					114.5	106.2		200	60.7					200	62.5
10	54		10	54	30		30				115.5	110.2		200	61.7					200	76.6
10	54	30	11			5	30				106.7	137.6	298	200	83.8					200	84.5
11			11	10	50	10	50				86.3	111.2	287	200	87.6	200	88.4	200	89.2	200	89.8
11	10	50	11	15	50	5					82.5	115.2	296	200	81.0	200	83.1	200	83.1		
11	15	50	11	18		2	10				90.8	138.6	274			200	71.6	200	72.0		
11	18		11	23		5					113.7	158.7	279			200	82.8	200	82.0		
11	23		11	25		2					94.0	143.7				200	71.1	200	70.2		
11	25		11	27		2					80.0	129.7	264			200	59.9	200	59.5		
11	27		11	27	40		40				67.5	110.2				200	51.7	200	52.0		
1	14	55	1	16		1	05	29.1	31.0	26.0						200	92.7	200	93.0		
1	16		1	18		2					117.5	165.2				200	107.9	200	109.3		
1	18		1	21	30	3	30	27.6	29.5	26.2	112.0	168.5	246			200	112.3	200	112.8		
1	21	30	1	30		8	30	25.5	27.3	24.1	109.6	174.0	246			200	116.5	200	118.0		
1	30		1	30	50		50	24.1	27.0	23.1	115.5	181.2				200	113.2	200	112.0		
1	30	50	1	38	30	7	40	27.0	28.3	26.2	109.2	159.2	252	200	118.6					200	118.6
1	38	30	1	40		1	30				110.5	175.7		200	147.4					200	147.4
1	40		1	41		1		29.1	31.9	32.2	116.5	188.2		200	154.0					200	154.2
1	41		1	42		1					93.5	170.2		200	153.0					200	153.2
1	42		1	46	50	4	50	24.6	25.5	23.6	101.5	143.2		200	104.0					200	104.5
1	46	50	1	49	30	2	40	42.1	42.1	42.3											
1	49	30	1	50	30	1		29.1	29.0	27.2	68.5										
1	50	30	1	56		5	30	26.6	29.5	28.2	94.5	109.6		200	85.2	200	87.5	200	88.7	200	89.0
1	56		1	57		1					84.5	102.6		200	89.1	200	89.1	200	93.0	200	94.0
1	57		1	58	30	1	30	33.1	34.0	33.2	97.5	122.7	266	200	103.1	200	99.7	200	104.7	200	102.8

Experiment Began.			Experiment Ended.			Elapsed Time.			Engine D. Amoskeag. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 5. Length of 2½ in. Hose.	Line No. 5. Pressure at Outlet.	Line No. 5. Diameter of Nozzle.	Line No. 5. Pressure at Nozzle.	Line No. 5. Discharge per Minute.	Line No. 6. Length of 2½ in. Hose.	Line No. 6. Pressure at Outlet.
H.	Min.	Sec.	H.	Min.	Sec.	Min.	Sec.	Lbs.	Lbs.	Lbs.		Feet	Lbs.	Inches.	Lbs.	Galls.	Feet.	Lbs.
10	42																	
10	44	30	10	47	10	2	40											
10	47	10	10	49		1	50											
10	49		10	54		5												
10	54		10	54	30		30											
10	54	30	11			5	30											
11			11	10	50	10	50											
11	10	50	11	15	50	5												
11	15	50	11	18		2	10											
11	18		11	23		5												
11	23		11	25		2												
11	25		11	27		2												
11	27		11	27	40		40											
1	14	55	1	16		1	05	29.1	31.0	26.0								
1	16		1	18		2					117.5	165.2						
1	18		1	21	30	3	30	27.6	29.5	26.2	112.0	168.5	246					
1	21	30	1	30		8	30	25.5	27.3	24.1	109.6	174.0	246					
1	30		1	30	50		50	24.1	27.0	23.1	115.5	181.2						
1	30	50	1	38	30	7	40	27.0	28.3	26.2	109.2	159.2	252	200	118.6			
1	38	30	1	40		1	30				110.5	175.7		200	147.4			
1	40		1	41		1		29.1	31.9	32.2	116.5	188.2		200	154.0			
1	41		1	42		1					93.5	170.2		200	153.0			
1	42		1	46	50	4	50	24.6	25.5	23.6	101.5	143.2		200	104.0			
1	46	50	1	49	30	2	40	42.1	42.1	42.3								
1	49	30	1	50	30	1		29.1	29.0	27.2	68.5							
1	50	30	1	56		5	30	26.6	29.5	28.2	94.5	109.6		200	85.2	200	87.5	200
1	56		1	57		1					84.5	102.6		200	89.1	200	89.1	200
1	57		1	58	30	1	30	33.1	34.0	33.2	97.5	122.7	266	200	103.1	200	99.7	200

Experiment Began.			Experiment Ended.			Elapsed Time.			Engine No. 43. Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 7. Length of 2½ in. Hose.	Line No. 7. Pressure at Outlet.	Line No. 7. Diameter of Nozzle.	Line No. 7. Pressure at Nozzle.	Line No. 7. Discharge per Minute.	Line No. 8. Length of 2½ in. Hose.	Line No. 8. Pressure at Outlet.	Water-Tower. Pressure at Base of Tower.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.
H.	Min.	Sec.	H.	Min.	Sec.	Min.	Sec.	Lbs.	Lbs.	Lbs.		Feet	Lbs.	Inches	Lbs.	Galls.	Feet	Lbs.	Lbs.	Inches.	Lbs.	Galls.
10	42																					
10	44	30	10	47	10	2	40												63.8	2.00	31.6	747
10	47	10	10	49		1	50															
10	49		10	54		5													62.4	2.00	32.9	761
10	54		10	54	30		30												63.0	2.00	38.2	820
10	54	30	11			5	30												84.5	2.00	45.1	892
11			11	10	50	10	50												85.5	2.00	45.7	898
11	10	50	11	15	50	5													80.4	2.00	42.8	870
11	15	50	11	18		2	10												61.7	2.00	34.1	776
11	18		11	23		5													72.2	2.00	41.4	855
11	23		11	25		2													62.7	2.00	36.0	797
11	25		11	27		2													58.5	2.00	34.3	743
11	27		11	27	40		40												50.0	2.00	25.6	675
1	14	55	1	16		1	05	29.1	31.0	26.0									85.0	2.00	46.2	901
1	16		1	18		2					117.5	165.2							102.5	2.00	51.2	952
1	18		1	21	30	3	30	27.6	29.5	26.2	112.0	168.5	246						108.5	2.00	54.0	977
1	21	30	1	30		8	30	25.5	27.3	24.1	109.6	174.0	246							2.00	59.2	1,022
1	30		1	30	50		50	24.1	27.0	23.1	115.5	181.2							144.4 111.2	2.00	62.9	1,054
1	30	50	1	38	30	7	40	27.0	28.3	26.2	109.2	159.2	252	200	118.6				119.0	2.00	63.1	1,056
1	38	30	1	40		1	30				110.5	175.7		200	147.4				120	2.00	80.5	1,192
1	40		1	41		1		29.1	31.9	32.2	116.5	188.2		200	154.0				150.0	2.00	78.0	1,173
1	41		1	42		1					93.5	170.2		200	153.0				90.0	2.00	47.2	916
1	42		1	46	50	4	50	24.6	25.5	23.6	101.5	143.2		200	104.0				104.5	2.00	55.1	987
1	46	50	1	49	30	2	40	42.1	42.1	42.3												
1	49	30	1	50	30	1		29.1	29.0	27.2	68.5											
1	50	30	1	56		5	30	26.6	29.5	28.2	94.5	109.6		200	85.2	200	87.5	200	83.8	2.279	29.8	1,050
1	56		1	57		1					84.5	102.6		200	89.1	200	93.0	200	86.5	2.279	33.4	1,090
1	57		1	58	30	1	30	33.1	34.0	33.2	97.5	122.7	266	200	103.1	200	99.7	200	100.5	2.279	38.2	1,165

* From 1.42 P. M. to 1.44-30 P. M., hose burst and line shut down.

Experiment Began.			Experiment Ended.			Elapsed Time.		Pressure on Lowry Hydrant supplying Engine D.	Pressure on Post Hydrant supplying Engines Nos. 43, 15.	Pressure on Post Piezometer, Engine No. 43.	Engine No. 15. Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 1. Length of 3 in. Hose.	Line No. 1. Pressure at Outlet.	Line No. 2. Length of 2½ in. Hose.	Line No. 2. Pressure at Outlet.	Line No. 3. Length of 2½ in. Hose.	Line No. 3. Pressure at Outlet.	Line No. 4. Length of 3 in. Hose.	Line No. 4. Pressure at Outlet.	Engine D. Amoskeag. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 5. Length of 2½ in. Hose.	Line No. 5. Pressure at Outlet.	Line No. 5. Diameter of Nozzle.	Line No. 5. Pressure at Nozzle.	Line No. 5. Discharge per Minute.	Line No. 6. Length of 3 in. Hose.	Line No. 6. Pressure at Outlet.	Engine No. 43. Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 7. Length of 2½ in. Hose.	Line No. 7. Pressure at Outlet.	Line No. 7. Diameter of Nozzle.	Line No. 7. Pressure at Nozzle.	Line No. 7. Discharge per Minute.	Line No. 8. Length of 2½ in. Hose.	Line No. 8. Pressure at Outlet.	Water-Tower. Pressure at Base of Tower.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.
H.	Min.	Sec.	H.	Min.	Sec.	Min.	Sec.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Feet.	Lbs.	Feet.	Lbs.	Feet.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Inches.	Lbs.	Galls.	Feet.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Inches.	Lbs.	Galls.	Feet.	Lbs.	Lbs.	Inches.	Lbs.	Galls.
1	58	30	2			1	30				91.5	128.2		200	113.2	200	111.5	200	113.2	200	115.1	80.0	164.7	204						500	117.6	41.5	90.1	138						800	84.7	114.0	2.279	41.4	1,212
2			2	02		2		32.1	34.0	34.2	99.5	133.7		200	109.1	200	107.4	200	109.7	200	111.5	81.0	170.0							500	114.0	53.0										107.7	2.279	38.4	1,169
2	02		2	06		4		30.1	31.3	29.7	99.2	128.2	268	200	112.7	200	109.0	200	110.4	200	112.6	65.2	155.5	178						500	113.9	74.5	126.3		300		1.263	50.3	339	800	115.1	109.2	2.279	40.1	1,193
2	06		2	10		4		26.1	24.0	23.1	113.5	144.0		200	Gauge reading above 1[illegible]0	200	123.2	200	123.9	200	127.5	82.5	169.0							500	127.4	107.2	151.3	398	300		1.263	63.8	383	800	129.8	123.3	2.279	45.0	1,265
2	10		2	10	50		50	26.1	28.0	24.1	101.5	145.7	242	200		200	123.2	200	123.9	200	127.5	82.0	175.0							500	102.2	90.0	145.1		300		1.263	59.6	370	800	119.7	96.0	2.279	29.7	1,028
2	10	50	2	12		1	10															90.0	212.0	230						500	52.0	117.0	150.1	344	300		1.263	60.6	373	800	76.2	46.2	2.279	15.5	743
2	12		2	14		2		34.1	34.2	32.2												57.5	122.5							500	48.2	105.7	140.1		300		1.263	55.8	358	800	45.2	44.0	2.279	14.5	717
2	14		2	15	30	1	30	33.1	36.0	33.2												84.0	163.0							500		110.0	135.1		300		1.263	52.2	346	800	45.0	40.0		13.0	680
2	15	30	2	17	15	1	45															72.5										116.5													
2	17	15	2	25		7	45	41.1	42.5	42.7												90.4										117.5													
2	25		2	26		1		39.1	39.0	38.3												90.0										96.0	60.1							200	72.2	57.5	2.279	14.0	707
2	26		2	26	45		45															89.0										87.0	99.1		250	89.9				200	95.3	82.0	2.279	28.2	1,000
2	26	45	2	30		3	15	33.1	34.2	30.2												86.0	117.1	310	200	99.3				350	100.7	108.8	140.1	344	250	96.8				200	98.0	95.5	2.279	32.5	1,075
2	30		2	34		4		32.6	34.5	29.7												78.2	129.8	294	200	103.9				350	102.1	107.6	145.1		250	102.6				200	103.5	97.8	2.279	33.9	1,098
2	34		2	36		2		39.1	40.0	38.3												88.5										138.0		352											
2	36		2	36	30		30															90.0										121.0	130.1							200	44.2	40.0	2.00	20.5	[illegible]
2	36	30	2	37	45	1	15															88.0										116.0	150.1		250	85.2				200	108.0	102.8	2.00	56.4	998
2	37	45	2	40		2	15	34.1	36.0	32.2												78.0	113.6	282	200	115.6				350	119.6	113.0	155.1	330	250	116.7				200	118.2	116.2	2.00	61.2	1,039
2	40		2	44	30	4	30	33.6	34.5	28.7												80.4	148.6		200	118.6				350	120.9	108.3	158.5		250	116.2				200	119.8	117.[illegible]	2.00	61.4	1,040
2	44	30	2	45	30	1		33.1	36.0	28.2												85.0	147.2		200	108.6				350	109.6	91.5	145.1		250	114.6				200	108.8	104.7	2.00	54.2	979
2	45	30	2	48	30	3		32.1	35.0	29.2												80.5	142.6		200					350	118.5	103.3	155.8		250	118.0				200	118.1	114.[illegible]	2.00	60.2	1,030
2	48	30	2	55	30	7		33.8	35.0	30.5												82.8	140.4	258	200	Gauge shut off. Reading over 120.				350	118.6	97.9	152.4	360	250	115.1				200	117.3	114.[illegible]	2.00	58.0	1,013
2	55	30	2	57	30	2																82.0	146.2		200					350	89.7	105.2	192.6		250	92.2						85.2	2.00	45.2	894
2	57	30	3			2	30	35.1	36.0	34.2												85.5	183.5	258						350	91.1	112.5	207.6	374	250	89.1						85.5	2.00	45.6	897
3			3	01	15	1	15	36.1	36.0	34.2												79.0	174.0							350	90.0	100.0	190.1	418	250	87.6						85.0	2.00	45.7	898
3	01	15	3	03		1	45															84.0	175.0							350	49.5	110.5	109.1		250	56.3				200	51.7	50.1	2.00	25.0	665
3	03		3	05	50	2	50	37.6	38.0	31.2												88.0										111.8	99.1		250	45.4				200	49.2	46.6	2.00	24.3	656
3	05	50	3	06	30		40															86.0										92.0	99.1	374	250	43.0							2.00	12.7	473

HALE WATER TOWER, NO. 2. TESTED NOVEMBER 17, 1893.—Concluded.

Experiment Began.			Experiment Ended.			Elapsed Time.			Pressure on Lowry Pump Suppling Engine D.	Pressure on Tod Hydraulic supplying Engines Nos. 4, 13	Pressure on Tod Pump over Pipeline No. 2.	Engine No. 13 Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 1. Length of 4 in. Hose.	Line No. 1. Pressure at Outlet.	Line No. 2. Length of 2½ in. Hose.	Line No. 2. Pressure at Outlet.	Line No. 3. Length of 2½ in. Hose.	Line No. 3. Pressure at Outlet.	Line No. 4. Length of 2½ in. Hose.	Line No. 4. Pressure at Outlet.	Engine D. Amoskeag. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. Length of 2½ in. Hose.	Line No. Pressure at Outlet.	Line No. Diameter of Nozzle.	Line No. Pressure at Nozzle.	Line No. Discharge per Minute.	Line No. Length of 2½ in. Hose.	Line No. Pressure at Outlet.	Engine No. 4. Clapp & Jones. Steam Pressure in Boiler.	Water Pressure at Engine.	Revolutions per Minute of Engine.	Line No. 7. Length of 2½ in. Hose.	Line No. 7. Pressure at Outlet.	Line No. 7. Diameter of Nozzle.	Line No. 7. Pressure at Nozzle.	Line No. 7. Discharge per Minute.	Line No. 8. Length of 2½ in. Hose.	Line No. 8. Pressure at Outlet.	Water-Tower. Pressure at Base of Tower.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.
H.	Min.	Sec.	H.	Min.	Sec.	Min.	Sec.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Feet.	Lbs.	Feet.	Lbs.	Feet.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Inches.	Lbs.	Galls.	Feet.	Lbs.	Lbs.	Lbs.		Feet.	Lbs.	Inches.	Lbs.	Galls.	Feet.	Lbs.	Lbs.	Inches.	Lbs.	Gallons.
3	06	30	3	16	...	9	30	38.1	40.0	39.8												67.5	87.6	362	200	42.9				350	43.3	120.7												41.6	2.00	21.4	16
3	16		3	17	...	1	...															60.0	87.7		200	27.0				350	27.5	90.0												25.7	2.00	12.4	467
3	17		3	20	..	3	...	41.1	42.1	42.3																						87.7															
3	20	.	3	21	..	1	...	42.1	42.1	42.3																						95.0										200	40.4		1.752	19.0	425
3	21	..	3	22	..	1	...																									91.5	75.1		250	45.4						200	56.7	52.5	1.752	35.4	577
3	22		3	29	20	7	20	39.4	38.7	34.2																						109.7	115.2	369	250	62.8						200	64.0	62.2	1.752	41.1	625
3	29	20	3	30	.	..	40																																									
3	30		3	33	.	3	..	41.1	40.0	41.3												80.0	107.7	354	200	59.1				350	62.0													59.0	1.752	38.9	605
3	33	..	3	35	.	2	..	38.1	41.5	41.3												61.7	95.7	330	200	54.3				350	58.7													54.1	1.752	35.1	576
.	35		3	36	30	1	30																																									
3	36	30	3	40	..	3	30				21.0	52.0						200	25.7	200	26.8																									25.7	1.752	15.4	380
3	40		3	42	...	2	..																																									
3	42		3	43	30	1	30															105.5	79.0		200	47.3				350	47.5													47.8	1.752	15.3	382
3	43	30	3	44	30	1																102.0	106.7		200	63.1				350	57.5													55.5	1.752	28.7	519
3	44	30	3	52	..	7	30	38.8	40.3	40.6												86.2	108.5	350	200	62.6				350	63.2													60.9	1.752	39.6	611
3	52	..	3	53	10	1	10	36.1	38.0	38.3			276					200	90.0	200	87.1	91.5	140.5		200	84.5				350	87.4													85.1	1.752	59.5	749
3	53	10	3	55	..	1	50				57.0	110.2						200	121.8	200	121.1	97.0	180.0		200	108.7				350	132.8													129.1	1.752	70.5	815
3	55	.	3	55	30	...	30				81.0	158.2						200	160.0	200	162.6																									160.5	1.752	95.5	950
3	55	30	3	56	..	.	30	35.1	35.0	35.2	116.5	158.2						200	105.9	200	103.9																									100.7	1.752	80.2	870
3	56	..	3	57	..	1					116.5	160.2						200	101.1	200	103.9																									100.5	1.752	70.0	814
3	57	..	3	59	..	2					116.0	156.7						200	97.2	200	97.4																									91.7	1.752	68.2	803
3	59	..	4	.	.	1					107.5	142.2	286					200	86.0	200	89.6																									81.5	1.752	57.9	739
4	.	..	4	03	..	3					110.5	129.6						200	80.7	200	83.5																									77.7	1.752	55.0	720
4	03	...	4	04	40	1	40				101.5	112.7						200	66.9	200	67.3																									59.5	1.752	45.0	653
4	04	40	4	06	..	1	20				78.5	89.2				200	75.7	200	73.1	200	74.6																									74.5	1.752	50.0	690
4	06	...	4	08	..	2	...				97.5	103.7	298			200	79.1	200	77.2	200	77.6																									77.0	1.752	54.4	717

TABLE No. 2.

1.	2.	3.	4.			5.			6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
Date of Test.	Style of Engine.	Department No.	Duration of Test.			Length of Time Pumps Running.			Average Steam Pressure.	Average Water Pressure at Steamer.	Total Quantity Pumped.	Average Quantity Pumped per Minute.	Total Coal used.	Total Water Evaporated.	Water Evapor'd per lb. Coal.	Water Evap. per lb. Coal from and at 212°	Duty in Foot-lbs. per 100 lbs. Coal.	Coal used per sq. ft. Grate per Hour.
			Hours.	Minutes.	Seconds.	Hours.	Minutes.	Seconds.	Lbs.	Lbs.	Gallons.	Gallons.	Lbs.	Lbs.	Lbs.	Lbs.		Lbs.
Oct. 19 .	Clapp & Jones	7	2	45	40	2	31	10	68.8	119.2	90,029	596	1,429	5,930	4.15	4.94	10,201,600	117.3
" 20 .	" "	43	2	55	30	2	42	40	72.1	119.6	88,714	545	1,049	5,168	4.93	5.87	14,026,000	103.3
" 24 .	Amoskeag .	27	2	54	15	2	30	15	71.5	136.4	68,891	459	1,716	4,150	2.42	2.88	8,112,900	138.4
" 25 .	" .	14	3	18	30	2	59	55	75.7	113.8	86,698	482	2,071	6,188	2.99	3.57	5,882,000	141.6
" 26 .	Silsby . . .	42	2	56	30	2	51	10	76.5	111.5	82,423	482	1,601	6,043	3.77	4.49	7,187,400	142.5
" 30 .	" . . .	23	1	52	45	1	48	55	59.0	102.1	45,646	419	835	2,962	3.55	4.22	6,482,100	91.1
" 31 .	" . . .	33	2	20	. .	2	. .	30	74.7	128.1	68,869	572	1,756	5,555	3.16	3.76	7,265,000	148.4
Nov. 1 .	" . . .	23	. .	52	30	. .	49	. .	87.8	126.8	27,630	564	644	2,209	3.43	4.10	7,993,400	151.4
" 3 .	Amoskeag .	27	3	05	. .	2	52	15	82.4	138.1	100,665	585	2,734	6,219	2.27	2.72	7,338,900	207.6
" 6 .	" .	D	2	59	30	2	37	45	78.4	123.3	84,402	535	2,361	5,273	2.23	2.66	5,900,000	191.0
" 8 .	" .	36	3	22	15	2	54	45	90.2	143.2	95,963	549	2,560	4,840	1.89	2.26	7,619,800	191.0
" 9 .	Clapp & Jones	21	3	23	50	3	03	55	92.7	143.0	98,675	536	2,103	6,068	2.88	3.45	9,678,400	181.6
" 13 .	" "	15	3	08	10	2	23	. .	101.3	112.8	130,121	910	2,869	8,398	2.93	3.51	7,758,300	172.1
" 14 .	Amoskeag .	36	2	07	30	2	01	10	92.3	124.0	60,307	499	1,563	. . . . .	. . . . .	. . . . .	9,632,700	184.8
" 16 .	Clapp & Jones	43	1	31	20	1	10	05	102.7	121.2	31,413	449	864	. . . . .	. . . . .	. . . . .	8,736,300	163.7

TABLE No. 3.

1.	2.	3.		4.	5.	6.	7.	8.	9.	10.
Engine No.	Cal. Capacity at 300 Revolutions.	Time.		Total Discharge per Minute.	No. of Lines.	Length of Lines.	Diameter of Nozzle.	Discharge per Minute each Nozzle.	Average Steam Pressure in Boiler.	Average Water Pressure at Engine.
	Gallons.	Min	Sec.	Gallons.		Feet.	Inches.	Gallons.	Pounds.	Pounds.
36	498	74	50	562	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	281 281	70.0	130.9
36	498	42	35	579	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	278 301	106.3	128.0
36	498	17	30	596	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	310 286	123.7	136.4
36	498	16	. .	460	1	*500	$1\frac{1}{4}$	. . . . .	100.7	204.3
36	498	9	15	564	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	103.3	147.1
36	498	8	20	425	1	500	$1\frac{1}{4}$	. . . . .	111.4	244.5
				Drafting from Tank.						
36	498	62	20	512	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	256 256	90.0	111.4
36	498	28	. .	532	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	255 277	78.5	110.8
36	498	15	05	379	1	500	$1\frac{1}{4}$	. . . . .	112.0	199.6
36	498	9	. .	575	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	123.6	149.8
D	562	89	20	561	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	269 292	77.5	118.3
D	562	18	30	562	2	*500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	311 251	72.6	110.9
D	562	15	40	478	1	*500	$1\frac{1}{2}$	. . . . .	87.6	163.2
D	562	8	50	533	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	80.0	127.4
D	562	8	05	674	2	200 200	Siamesed $1\frac{3}{4}$	. . . .	75.3	97.2
D	562	7	10	353	1	500	$1\frac{1}{4}$	. . . . .	88.3	173.1
14	594	52	. .	528	2	400 400	$1\frac{1}{4}$ $1\frac{1}{8}$	278 250	78.3	104.8
14	594	37	10	512	2	400 400	$1\frac{1}{8}$ $1\frac{1}{8}$	256 256	79.2	108.5
14	594	24	50	325	1	600	$1\frac{1}{4}$	. . . . .	82.9	178.4
14	594	13	30	495	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	78.2	122.2
14	594	12	. .	466	2	400 400	$1\frac{1}{8}$ $1\frac{1}{8}$	233 233	74.0	92.6

*Three-inch hose.

Table No. 3. — *Continued.*

1.	2.	3.		4.	5.	6.	7.	8.	9.	10.
ENGINE No.	Cal. Capacity at 300 Revolutions.	Time.		Total Discharge per Minute.	No. of Lines.	Length of Lines.	Diameter of Nozzle.	Discharge per Minute each Nozzle.	Average Steam Pressure in Boiler.	Average Water Pressure at Engine.
	Gallons.	Min	Sec.	Gallons.		Feet.	Inches.	Gallons.	Pounds.	Pounds.
14	594	9	30	427	2	400 400	$1\frac{1}{8}$ $1\frac{1}{8}$	213.5 213.5	67.8	67.4
14	594	7	. .	580	2	200 200	Siamesed $1\frac{3}{4}$	. . . .	63.5	80.7
14	594	6	15	460	2	450 550	Siamesed $1\frac{1}{2}$	. . . .	62.6	107.3
14	594	4	30	506	2	400 400	$1\frac{1}{8}$ $1\frac{1}{8}$	253 253	52.8	109.7
14	594	3	15	477	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	69.0	116.4
14	594	3	. .	575	2	200 200	Siamesed $1\frac{3}{4}$	. . . .	45.0	80.0
						FIRST TRIAL.				
27	619	55	45	356	1	500	$1\frac{1}{4}$	. . . . .	79.8	116.7
27	619	41	30	520	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	273 247	62.7	110.3
27	619	37	30	496	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	248 248	70.4	110.8
27	619	15	20	687	2	200 200	Siamesed $1\frac{3}{4}$	. . . .	84.5	119.5
27	619	6	. .	607	2	200 200	Siamesed $1\frac{3}{4}$	. . . .	86.7	90.8
						SECOND TRIAL.				
27	619	41	10	594	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	285 309	78.7	142.7
27	619	18	. .	640	2	*500 500	$1\frac{1}{4}$ $1\frac{1}{4}$	347 293	82.0	128.1
27	619	17	35	596	2	500 500	$1\frac{1}{4}$ $1\frac{1}{4}$	298 298	104.7	134.0
27	619	16	30	587	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	293.5 293.5	97.5	148.4
27	619	16	20	566	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	75.5	154.7
27	619	11	50	609	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	292 317	93.3	147.8
27	619	11	20	604	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	290 314	72.5	147.1
27	616	7	20	576	2	500 500	$1\frac{1}{4}$ $1\frac{1}{4}$	288 288	79.4	131.3

* Three-inch hose.

Table No. 3. — *Continued.*

1.	2.	3.		4.	5.	6.	7.	8.	9.	10.
Engine No.	Cal. Capacity at 300 Revolutions.	Time.		Total Discharge per Minute.	No. of Lines.	Length of Lines.	Diameter of Nozzle.	Discharge per Minute each Nozzle.	Average Steam Pressure in Boiler.	Average Water Pressure at Engine.
	Gallons.	Min	Sec.	Gallons.		Feet.	Inches.	Gallons.	Pounds.	Pounds.
43	525	57	30	577	2	400 400	$1\frac{1}{4}$ $1\frac{1}{8}$	303 274	70.8	116.7
43	525	48	. .	556	2	400 400	$1\frac{1}{8}$ $1\frac{1}{8}$	278 278	73.2	115.7
43	525	26	50	536	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	268 268	75.2	122.5
43	525	20	10	535	2	500 500	$1\frac{1}{4}$ Ring $1\frac{1}{8}$	263 272	72.9	133.5
				DRAFTING FROM TANK.						
43	525	16	. .	517	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	258.5 258.5	109.3	116.5
43	525	13	50	547	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	261 286	105.9	112.4
43	525	12	40	435	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	217.5 217.5	87.5	87.1†
43	525	11	20	467	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	233.5 233.5	98.2	93.1†
43	525	3	45	304	1	1,000	$1\frac{1}{4}$	. . . . .	113.3	205.7
21	524	48	35	575	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	275 300	89.4	124.7
21	524	41	. .	582	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	291 291	90.7	140.2
21	524	24	10	607	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	315 292	112.0	138.1
21	524	11	25	576	2	500 500	Siamesed $1\frac{1}{2}$	. . . .	102.3	152.8
21	524	10	45	573	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	275 298	82.3	127.0
21	524	8	15	472	1	‡500	$1\frac{1}{4}$	. . . . .	114.9	219.5
21	524	8	10	407	1	500	$1\frac{1}{4}$	. . . . .	107.9	221.4
21	524	7	30	479	1	*500	$1\frac{1}{4}$	. . . . .	118.8	217.5
21	524	5	10	277	1	500	$1\frac{1}{4}$	. . . . .	42.2	109.1
21	524	3	40	294	1	500	$1\frac{1}{4}$	. . . . .	44.0	117.4

* Three-inch hose.
† Air leaking into the suction through the relief valve.
‡ Three-inch hose fitted with $2\frac{1}{2}$-inch couplings.

Table No. 3. — *Continued.*

1.	2.	3.		4.	5.	6.	7.	8.	9.	10.
Engine No.	Cal. Capacity at 300 Revolutions.	Time.		Total Discharge per Minute.	No. of Lines.	Length of Lines.	Diameter of Nozzle.	Discharge per Minute each Nozzle.	Average Steam Pressure in Boiler.	Average Water Pressure at Engine.
	Gallons.	Min	Sec.	Gallons.		Feet.	Inches.	Gallons.	Pounds.	Pounds.
7	691	45	. .	640	2	400 400	1¼ 1⅛	338 302	85.1	147.0
7	691	33	40	504	2	400 400	1⅛ 1⅛	252 252	51.0	98.4
7	691	24	. .	581	2	400 400	1¼ 1⅛	306 275	65.2	119.6
7	691	19	. .	563	2	400 400	1⅛ 1⅛	281.5 281.5	70.0	124.2
7	691	12	. .	697	2	200 200	Siamesed 2	. . . .	61.4	86.7
7	691	9	. .	725	2	200 200	Siamesed 1¾	. . . .	89.8	123.4
15	957	64	10	900	3	500 *500 500	1⅛ 1¼ 1⅛	275 350 275	107.4	130.3
15	957	35	35	978	4	500 500 *500 500	1⅛ 1⅛ 1⅛ 1⅛	235 236 271 236	95.3	96.3
15	957	12	30	989	4	200 200 200 *450	Siamesed 2	. . . .	95.3	101.4
15	957	11	50	1,022	4	500 500 500 *500	Siamesed 1¾ 1⅛	752 270	98.2	96.6
15	957	4	50	749	2	*500 500	1¼ 1⅛	426 323	115.1	173.9
42	. . . . .	50	30	515	2	400 400	1⅛ 1⅛	257.5 257.5	78.9	101.6
42	. . . . .	37	50	550	2	400 400	1⅛ 1¼	262 288	74.5	102.2
42	. . . . .	14	20	441	1	*500	1½	. . . . .	86.6	143.4
42	. . . . .	12	. .	502	2	500 *500	1⅛ 1⅛	234 268	71.2	96.8
42	. . . . .	11	. .	529	2	500 *500	1⅛ 1¼	228 301	66.1	90.4
42	. . . . .	10	. .	327	1	500	1¼	. . . . .	83.3	151.1
42	. . . . .	9	20	395	1	*500	1¼	. . . . .	86.4	158.1
42	. . . . .	7	40	387	1	500	1¼	. . . . .	86.0	151.6
42	. . . . .	4	20	527	2	400 *500	1⅛ 1¼	243 284	66.0	88.7

* Three-inch hose.

Table No. 3. — *Concluded.*

1.	2.	3.		4.	5.	6.	7.	8.	9.	10.
Engine No.	Cal. Capacity at 300 Revolutions.	Time.		Total Discharge per Minute.	No. of Lines.	Length of Lines.	Diameter of Nozzle.	Discharge per Minute each Nozzle.	Average Steam Pressure in Boiler.	Average Water Pressure at Engine.
	Gallons.	Min	Sec.	Gallons.		Feet.	Inches.	Gallons.	Pounds.	Pounds.
23	. . . . .	37	. .	460	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	245 215	55.2	86.4
23	. . . . .	27	30	484	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	242 242	72.8	104.0
23	. . . . .	14	30	295	1	500	$1\frac{1}{4}$	. . . . .	52.9	124.1
23	. . . . .	12	25	335	1	500	$1\frac{1}{4}$	. . . . .	65.4	157.4
23	. . . . .	10	. .	470	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	251 219	44.6	82.3
						SECOND TRIAL.				
23	. . . . .	43	30	590	2	500 500	$1\frac{1}{4}$ $1\frac{1}{8}$	305 285	91.4	136.6
33	. . . . .	41	30	611	2	500 500	$1\frac{1}{4}$ $1\frac{1}{4}$	305.5 305.5	70.7	127.6
33	. . . . .	21	. .	612	2	500 500	$1\frac{1}{8}$ $1\frac{1}{4}$	294 318	79.7	141.1
33	. . . . .	19	30	662	2	500 *500	$1\frac{1}{4}$ $1\frac{1}{4}$	307 355	82.6	124.5
33	. . . . .	17	20	594	2	500 500	$1\frac{1}{4}$ $1\frac{1}{4}$	297 297	78.9	120.2
33	. . . . .	5	40	403	1	500	$1\frac{1}{4}$	. . . . .	86.7	207.8
33	. . . . .	4	40	582	2	500 500	$1\frac{1}{8}$ $1\frac{1}{8}$	291 291	88.4	139.6

* Three-inch hose.

Engine No. 36. Tested November 8, 1893. Style, Amoskeag.

Size, 6.136 in. × 4 in. × 8 in. Capacity at 300 Revolutions, 498 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	11	. .	. .	. .	. .	. .	. .	22.5																
[2] 1	14	40	1	17	. .	2	20	70.2	67.2	39	. .	500	2.5	1.133	. . .	205	500	2.5	1.127	. . .	200	405	945	
1	17	. .	1	18	. .	1	. .	98.0	93.2	. . .	298	500	2.5	1.133	38.4	235	500	2.5	1.127	37.2	229	464	464	
1	18	. .	1	19	30	1	30	115.0	126.2	. . .	. .	500	2.5	1.133	53.9	279	500	2.5	1.127	52.7	273	552	828	
[3] 1	19	30	1	21	30	2	. .	113.0	73.2	36	292	500	2.5	1.133	33.4	220	500	2 5	1.127	32.5	214	434	868	
1	21	30	1	25	30	4	. .	82.7	123.2	36	354	500	2.5	1.133	53.6	278	500	2.5	1.127	51.9	270	548	2,192	74 min. 50 sec.
1	25	30	1	30	. .	4	30	77.0	133.7	36	366	500	2.5	1.133	58.2	290	500	2.5	1.127	56 4	282	572	2,574	Average steam pressure, 70 lbs. Average water pressure, 130.9 lbs.
1	30	. .	1	33	30	3	30	69.2	138.7	. . .	364	500	2.5	1.133	60.4	294	500	2.5	1.127	58.7	287	581	2,033	
1	33	30	1	36	. .	2	30	54.5	118.2	35	. .	500	2.5	1.133	51.4	273	500	2.5	1.127	49.7	265	538	1,345	
1	36	. .	1	38	30	2	30	62.7	133.2	. . .	360	500	2.5	1.133	57.5	287	500	2.5	1.127	55.7	280	567	1,417	Line No. 1, 55.75 lbs. = 281 galls. Line No. 2, 55.75 lbs. = 281 galls.
1	38	30	1	41	30	3	. .	50.7	117.2	37	. .	500	2.5	1.133	50.8	271	500	2.5	1.127	49.4	264	535	1,605	Total, 562 galls.

[1] Started new fire at 1.11 P.M. [2] Started pumps at 1.14-40 P.M. Steam pressure, 60 lbs.
[3] Surplus of cold water in boiler reduced pressure for a minute.

Engine No. 36. Tested November 8, 1893. Style, Amoskeag. — *Continued.*

Size, 6.136 in. × 4 in. × 8 in. Capacity at 300 Revolutions, 498 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
1	41	30	1	54	. .	12	30	61.7	134.4	36	366	500	2.5	1.133	58.1	290	500	2.5	1.127	56.2	282	572	7,150	
1	54	. .	1	55	. .	1	. .	70.5	146.7	35	. .	500	2.5	1.133	62.5	300	500	2.5	1.127	61.1	293	593	593	
1	55	. .	2	. .	. .	5	.	50.3	118.4	36.5	322	500	2.5	1.133	51.9	273	500	2.5	1.127	50.4	266	539	2,695	
2	. .	. .	2	03	. .	3	. .	65.5	139.2	. . .	372	500	2.5	1.133	58.9	291	500	2.5	1.127	57.3	284	575	1,725	
2	03	. .	2	04	30	1	30	57.0	126.2	. . .	. .	500	2.5	1.133	54.8	280	500	2.5	1.127	53.6	275	555	833	
2	04	30	2	29	30	25	. .	73.5	145.0	36	372	500	2.5	1.133	61.8	298	500	2.5	1.127	60.6	292	590	14,750	
[1] 2	29	30	2	34	05	4	35	98.7																
2	34	05	2	39	. .	4	55	112.0	120.7	39	347	500	2.5	1.133	48.9	265	500	2.5	1.263	37.0	291	556	2,734	
2	39	. .	2	42	. .	3	. .	72.2	95.6	36	302	500	2.5	1.133	38.6	236	500	2.5	1.263	28.7	256	492	1,476	
2	42	. .	2	44	30	2	30	94.8	126.2	. . .	. .	500	2.5	1.133	54.4	280	500	2.5	1.263	39.7	301	581	1,452	
2	44	30	2	46	30	2	. .	76.0	113.7	35	. .	500	2.5	1.133	47.1	260	500	2.5	1.263	35.1	283	543	1,086	42 min. 35 sec. Average steam pressure, 106.3 lbs. Average water pressure, 128 0 lbs. Line No. 1, 54.75 lbs. = 278 galls. Line No. 2, 41.25 lbs. = 301 galls. Total, 579 galls.
2	46	30	2	52	30	6	. .	96.8	123.6	35	354	500	2.5	1.133	52.6	275	500	2.5	1.263	39.0	299	574	3,444	
2	52	30	2	57	. .	4	30	111.0	130.2	35	358	500	2.5	1.133	55.6	283	500	2.5	1.263	41.0	306	589	2,650	

2	57	. .	3	. .	. .	3	. .	126.0	136.2	. . .	378	500	2.5	1.133	57.9	289	500	2.5	1.263	42.6	312	601	1,803	
3	. .	. .	3	10	30	10	30	123.0	138.9	35.5	379	500	2.5	1.133	58.9	291	500	2.5	1.263	43.0	313	604	6,342	
3	10	30	3	16	40	6	10	100.5	134.6	36	. .	500	2.5	1.133	56.5	285	500	2.5	1.263	41.7	309	594	3,663	
3	16	40	3	19	. .	2	20	99.5	223.7	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	71.6	405	405	945	8 min. 20 sec.
3	19	. .	3	24	. .	5	. .	113.6	250.8	39	272	. .	. .	. . .	. . .	. . .	500	2.5	1.263	80.9	431	431	2,155	Average steam pressure, 111.4 lbs.
3	24	. .	3	25	. .	1	. .	127.5	260.0	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	84.7	440	440	440	Average water pressure, 244.5 lbs. Line No. 2, 82.5 lbs. = 425 galls.
3	25	. .	3	27	. .	2	. .	126.5	192.2	. . .	276	500	3	1.259	88.6	446	. .	. .	. . .	. . .	. .	446	892	
3	27	. .	3	29	. .	2	. .	112.5	237.2	. . .	. .	500	3	1.259	108.4	494	. .	. .	. . .	. . .	. .	494	988	
3	29	. .	3	30	. .	1	. .	98.0	211.2	38.5	298	500	3	1.259	95.3	462	. .	. .	. . .	. . .	. .	462	462	16 min.
3	30	. .	3	33	. .	3	. .	83.0	184.7	. . .	. .	500	3	1.259	85.9	440	. .	. .	. . .	. . .	. .	440	1,320	Average steam pressure, 100.7 lbs. Average water pressure, 204.3 lbs. Line No. 1, 96.5 lbs. = 460 galls.
3	33	. .	3	40	. .	7	. .	100.0	209.2	38.5	296	500	3	1.259	96.6	465	. .	. .	. . .	. . .	. .	465	3,255	
[2] 3	40	. .	3	41	. .	1	. .	87.0	179.2	39	278	500	3	1.259	83.8	434	. .	. .	. . .	. . .	. .	434	434	
3	41	. .	3	43	. .	2	. .	62.0	141.7	. . .	. .	500	3	1.259	67.0	388	. .	. .	. . .	. . .	. .	388	776	
[3] 3	43	. .	3	44	. .	1	. .	45.0	116.2	. . .	. .	500	3	1.259	52.8	344	. .	. .	. . .	. . .	. .	344	344	
[4] 3	44	.	3	58	. .	14																		
[5] 3	58	. .	4	. .	. .	2	. .	85.0	131.2	. . .	347	500	2.5	. . .	Siam	esed.	500	2.5	1.509	56.2	532	532	1,064	
4	. .	. .	4	01	. .	1	. .	101.0	141.7	38	347	500	2.5	. . .	Siam	esed.	500	2.5	1.509	61.2	555	555	555	9 min. 15 sec.
4	01	. .	4	04	30	3	30	117.5	157.9	. . .	368	500	2.5	. . .	Siam	esed.	500	2.5	1.509	68.2	585	585	2,047	Average steam pressure, 103.3 lbs. Average water pressure, 147.1 lbs.
4	04	30	4	06	30	2	. .	94.5	143.2	37	. .	500	2.5	. . .	Siam	esed.	500	2.5	1.509	62.0	558	558	1,116	Line No. 2, 65.2 lbs. = 564 galls.
4	06	30	4	07	15	. .	45	113.0	156.2	. . .	. .	500	2.5	. . .	Siam	esed.	500	2.5	1.509	65.7	575	575	432	
[6] 4	07	15	4	12	30	5	15	120.5	. . .	42														

[1] Shut down to remove strainer and change nozzle. [2] Started to let fire run down.
[3] At 3.44 P.M. pulled fire and changed the size of the exhaust from 2 tips each $1\frac{1}{8}$ in. to 15-16 in. by plugging with wedges.
[4] At 3.50 P.M. started new fire. [5] At 3.58 P.M. started pumps again. [6] Shut down to change hose, etc.

Engine No. 36. Tested November 8, 1893. Style, Amoskeag. — *Concluded.*

Size, 6.136 in. × 4 in. × 8 in. Capacity at 300 Revolutions, 498 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
4	12	30	4	20	30	8	. .	129.6	135.2	36	370	500	2.5	1.263	41.6	308	500	2.5	1.131	56.4	284	592	4,736	17 min. 30 sec. Average steam pressure, 123.67 lbs. Average water pressure, 136.4 lbs. Line No. 1, 44 lbs. = 310 galls. Line No. 2, 58 lbs. = 286 galls. Total, 596 galls.
4	20	30	4	26	.	5	30	125.7	139.7	36	377	500	2.5	1.263	43.2	313	500	2.5	1.131	58.6	290	603	3,317	
4	26	. .	4	30	. .	4	. .	109.0	134.2	34	. .	500	2.5	1.263	42.1	310	500	2.5	1.131	56.7	285	595	2,380	
4	30	. .	4	31	. .	1	. .	75.5	115.2	. . .	320	500	2.5	1.263	36.8	290	500	2.5	1.131	49.2	266	556	556	
4	31	. .	4	33	. .	2	. .	47.0	94.2	. . .	. .	500	2.5	1.263	. . .	254	500	2 5	1.131	. . .	234	488	976	
4	33	. .	4	33	15	. .	15	28.5	75.2	. . .	. .	500	2.5	1.263	. . .	220	500	2.5	1.131	. . .	206	426	106	
. .	. .	. .	[1]4	33	15	. .	. .	25.0																
						Average		90.2	143.2														95,963	

Duration of test, 3 h. 22 min. 15 sec.
Length of time that pumps were running, 2 h. 54 min. 45 sec.
Total pounds coal used, 2,560.
Total pounds water evaporated, 4,840.

Pounds of water evaporated per pound coal, 1.89.
Pounds of water evaporated per pound coal from and at 212° 2.26.
Duty in foot-pounds per 100 pounds coal, 7,619,800.
Coal used per square foot of grate per hour, 191.0 lbs.

[1] At 4.33–15 P.M., shut down.

Engine No. 36. Tested November 14, 1893. Drafting. Style, Amoskeag.

Size, 6.136 in. × 4 in. × 8 in. Capacity at 300 Revolutions, 498 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Lift.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Feet.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 9	54	. .	. .	. .	. .	. .	. .	23.0																
[2] 9	56	25	9	58	. .	1	35	54.0	21.6	. . .	. .	500	2.5	1.141	. . .	100	500	2.5	1.131	. . .	100	200	317	
9	58	. .	9	59	. .	1	. .	70.5	54.6	. . .	. .	500	2.5	1.141	. . .	185	500	2.5	1.131	. . .	185	370	370	
9	59	. .	10	. .	. .	1	. .	95.5	94.6	. . .	. .	500	2.5	1.141	. . .	239	500	2.5	1.131	. . .	240	479	479	62 min. 20 sec. Av. steam pr., 90.0 lbs., av. water pr., 111.4 lbs.
10	. .	. .	10	03	. .	3	. .	112.0	90.9	12.6	. .	500	2.5	1.141	37.0	235	500	2.5	1.131	38.7	236	471	1,413	
10	03	. .	10	06	. .	3	. .	111.0	107.1	. . .	. .	500	2.5	1.141	40.7	247	500	2.5	1.131	42.8	251	498	1,494	
10	06	. .	10	16	. .	10	. .	102.1	127.4	12.4	358	500	2.5	1.141	49.9	273	500	2.5	1.131	53.0	276	549	5,490	
10	16	. .	10	23	. .	7	. .	86.6	114.9	12.2	. .	500	2.5	1.141	45.3	260	500	2.5	1.131	47.8	263	523	3,661	
10	23	. .	10	26	30	3	30	74.0	100.3	. . .	322	500	2.5	1.141	39.5	243	500	2.5	1.131	41.8	245	488	1,708	
10	26	30	10	30	. .	3	30	60.7	84.6	12.0	286	500	2.5	1.141	33.0	222	500	2.5	1.131	34.4	224	446	1,561	Line No. 1, 46.2 lbs. = 256 galls. Line No. 2, 46.2 lbs. = 256 galls. Total 512 galls.
10	30	. .	10	34	30	4	30	60.0	84.2	. . .	. .	500	2.5	1.141	33.0	222	500	2.5	1.131	34.4	224	446	2,007	
10	34	30	10	39	30	5	. .	73.9	99.6	. . .	. .	500	2.5	1.141	39.1	242	500	2.5	1.131	40.8	243	485	2,425	
10	39	30	10	45	30	6	. .	87.4	115.7	11.8	342	500	2.5	1.141	45.0	260	500	2.5	1.131	47.8	263	523	3,138	
10	45	30	11	. .	20	14	50	102.0	128.2	11.6	372	500	2.5	1.141	50.7	275	500	2.5	1.131	53.6	278	553	8,202	
[3] 11	. .	20	11	01	30	1	10	112.0	204.6	11.4	. .	500	2.5	1.141	82.2	350	. . .	. . .	. . .	. . .	. .	350	408	

[1] Started new fire at 9.54 A.M.

[2] Started pumps at 9.56-25 A.M.

[3] Line No. 2 shut off in order to change nozzle.

Engine No. 36. Tested November 14, 1893. Drafting. Style, Amoskeag. — *Concluded.*

Size, 6.136 in. × 4 in. × 8 in. Capacity at 300 Revolutions, 498 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Lift.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Feet.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
11	01	30	11	03	. .	1	30	107.0	130.6	. . .	336	500	2.5	1.141	51.2	277	500	2.5	1.259	40.8	303	580	870	28 min. Av. steam pr., 78.5 lbs.; av. water pr., 110.8 lbs.
11	03	. .	11	05	30	2	30	59.3	89.6	. . .	. .	500	2.5	1.141	35.6	231	500	2.5	1.259	28.2	252	483	1,208	
11	05	30	11	22	. .	16	30	80.1	113.7	11.1	353	500	2.5	1.141	44.6	258	500	2.5	1.259	34.7	279	537	8,860	Line No. 1, 46 lbs. = 255 galls. Line No. 2, 35 lbs. = 277 galls. Total, 532 galls.
11	22	. .	11	24	. .	2	. .	58.0	88.6	. . .	. .	500	2.5	1.141	34.1	226	500	2.5	1.259	26.9	244	470	940	
11	24	. .	11	28	30	4	30	85.0	117.9	. . .	344	500	2.5	1.141	47.7	267	500	2.5	1.259	37.8	292	559	2,515	
11	28	30	11	29	30	1	. .	69.5	99.6	. . .	. .	500	2.5	1.141	40.7	247	500	2.5	1.259	31.9	266	513	513	
[1] 11	29	30	11	32	. .	2	30	73.5	133.1	10.7	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.259	42.5	308	308	770	15 min. 5 sec. Av. steam pr., 112 lbs.; av. water pr., 199.6 lbs.
11	32	. .	11	33	. .	1	. .	98.0	180.6	. . .	244	. .	. .	. . .	. . .	. . .	500	2.5	1.259	54.6	350	350	350	
11	33	.	11	40	. .	7	. .	127.3	224.1	10.4	262	. .	. .	. . .	. . .	. . .	500	2.5	1.259	72.7	405	405	2,835	Line No. 2, 65.5 lbs. = 379 galls.
11	40	. .	11	44	35	4	35	112.4	202.4	. . .	246	. .	. .	. . .	. . .	. . .	500	2.5	1.259	66.1	385	385	1,765	
[2] 11	44	35	11	48	30	3	55	125.0																
11	48	30	11	50	. .	1	30	128.5	84.6	10.2	. .	500	2.5	. . .	Siame	sed .	500	2.5	1.509	. . .	500	500	750	
11	50	. .	11	59	. .	9	. .	123.6	149.8	. . .	351	500	2.5	. . .	Siame	sed .	500	2.5	1.509	65.7	575	575	5,175	
11	59	. .	12	. .	. .	1	. .	99.0	135.6	9.9	. .	500	2.5	. . .	Siame	sed .	500	2.5	1.509	56.7	534	534	534	
[3] 12	. .	. .	12	01	30	1	30	40.5	62.6	. . .	. .	500	2.5	. . .	Siame	sed .	500	2.5	1.509	26.9	366	366	549	
						Average,		92.3	124.0														60,307	

Duration of test, 2 h. 7 min. 30 sec.
Length of time that pumps were running, 2 h. 1 min. 10 sec.
Total pounds coal used, 1,563.

Duty in foot-pounds per 100 pounds coal, 9,632,700.
Coal used per square foot of grate per hour, 184.8 lbs.

[1] Line No. 1 shut off.

[2] Shut down to change hose, nozzle, etc.

[3] Shut down at 12.01–30 P.M.

Engine Relief D. Tested November 6, 1893. Style, Amoskeag.

Size 6.888 in. × 4.249 in. × 8 in. Capacity at 300 Revolutions, 562 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	17	. .	. .	. .	. .	. .	. .	24																
[2] 1	23	40	1	25	. .	1	20	85	66.7	. . .	. .	. .	. .	. .	. . .	. . .	500	2.5	1.262	. . .	200	200	267	
1	25	. .	1	26	30	1	30	89.5	102.2	41	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.262	31.6	268	268	402	
1	26	30	1	27	30	1	. .	84	156.7	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.262	47.7	330	330	330	
1	27	30	1	29	. .	1	30	75.5	108.2	36	. .	500	2.5	1.131	46.3	258	500	2.5	1.262	34.4	280	538	807	
1	29	. .	1	30	. .	1	. .	50	108.2	. . .	. .	500	2.5	1.131	37.8	233	500	2.5	1.262	27.7	252	485	485	
[3] 1	30	. .	1	31	10	1	10	88	170	. . .	. .	500	2.5	1.131	60.5	295	. .	. .	. . .	. . .	. .	295	344	
1	31	10	1	33	. .	1	50	83.5	97.7	. . .	. .	500	2.5	1.131	41.2	244	500	2.5	1.262	29.9	262	506	927	
1	33	. .	1	43	. .	10	. .	83.5	112	36	310	500	2.5	1.131	48.1	264	500	2.5	1.262	35.7	286	550	5,500	
1	43	. .	2	. .	. .	17	. .	81.6	122.2	36	316	500	2.5	1.131	52.1	274	500	2.5	1.262	38.6	297	571	9,707	
2	. .	. .	2	08	. .	8	. .	78	119.9	36	317	500	2.5	1.131	51.1	271	500	2.5	1.262	37.7	295	566	4,528	
2	08	. .	2	28	30	20	30	74	115.2	36	305	500	2.5	1.131	49.0	266	500	2.5	1.262	36.2	288	554	11,357	

89 min. 20 sec.
Av. steam pressure, 77.5 lbs.
Av. water pressure, 118.3 lbs.
Line No. 1, 51.2 lbs. = 269 galls.
Line No. 2, 39 lbs. = 292 galls.
Total, 561 galls.

[1] Started new fire at 1.17 P.M. [2] Started pumps at 1.23–40 P.M. Line No. 2 on. [3] Line No. 2 off in order to put in washer.

Engine Relief D. Tested November 6, 1893. Style, Amoskeag. — *Concluded.*

Size, 6.888 in. × 4.249 in. × 8 in. Capacity at 300 Revolutions, 562 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
2	28	30	2	30	. .	1	30	59	106.2	. . .	. .	500	2.5	1.131	45.3	255	500	2.5	1.262	33.2	276	531	797	
2	30	. .	2	31	30	1	30	59	107.2	. . .	290	500	2.5	1.131	44.9	255	500	2.5	1.262	33.4	276	531	797	
2	31	30	2	41	. .	9	30	77.9	121.8	37	313	500	2.5	1.131	51.0	271	500	2.5	1.262	38.0	295	566	5,377	
2	41	. .	2	43	. .	2	. .	57	130.7	36	350	500	2.5	1.131	63.1	302	500	2.5	1.262	46.6	326	628	1,256	
2	43	. .	2	45	. .	2	. .	56	107.7	37	. .	500	2.5	1.131	45.3	256	500	2.5	1.262	33.6	278	534	1,068	
2	45	. .	3	. .	. .	15	. .	81.6	123.7	36	315	500	2.5	1.131	51.5	272	500	2.5	1.262	38.2	296	568	8,520	
3	. .	. .	3	. .	30	. .	30	86	125.2	. . .	. .	500	2.5	1.131	52.8	276	500	2.5	1.262	39.3	300	576	288	
[1] 3	. .	30	3	07	40	7	10	88.3	173.1	40	196	. .	. .	. . .	. . .	. . .	500	2.5	1.262	54.3	353	353	2,530	
[2] 3	07	40	3	10	20	2	40	89																
3	10	20	3	12	. .	1	40	90	123.2	. . .	. .	500	3	1.259	52.3	343	. .	. .	. . .	. . .	. .	343	571	
3	12	. .	3	15	. .	3	. .	88	106.9	35	322	500	3	1.259	45.9	320	500	2.5	1.127	42.5	245	565	1,695	
3	15	. .	3	16	. .	1	. .	90	121.2	. . .	362	500	3	1.259	54.3	349	500	2.5	1.127	50.7	270	619	619	
3	16	. .	3	17	. .	1	. .	82	127.2	. . .	. .	500	3	1.259	46.3	322	500	2.5	1.127	49.9	269	591	591	
3	17	. .	3	26	. .	9	. .	71	113.6	36	312	500	3	1.259	40.2	300	500	2.5	1.127	45.9	257	557	5,013	
3	26	. .	3	30	30	4	30	59.5	102.2	36	300	500	3	1.259	43.7	313	500	2.5	1.127	40.5	239	552	2,484	

18 min. 30 sec.
Av. steam pressure, 72.6 lbs.
Av. water pressure, 110.9 lbs.
Line No. 1, 44 lbs. = 311 galls.
Line No. 2, 44.5 lbs. = 251 galls.
Total, 562 galls.

[2] 3	30	30	3	34	. .	3	30	89.5																
3	34	. .	3	41	30	7	30	86.3	167.3	38	257	500	3	1.509	46.0	481	. .	. .	. . .	. .	. .	481	3,608	15 min. 40 sec. Av. steam pressure, 87.6 lbs.
3	41	30	3	49	40	8	10	88.7	159.2	40	254	500	3	1.509	44.9	476	. .	. .	. . .	. . .	. .	476	3,887	Av. water pressure, 163.2 lbs. Line No. 1, 47 lbs. = 478 galls.
[3] 3	49	40	3	53	40	4	. .	88.2																
3	53	40	3	55	. .	1	20	75.5	86.3	38	. .	500	2.5	. . .	Slam	esed.	500	2.5	1.509	52.2	512	512	683	8 min. 50 sec.
3	55	. .	4	. .	. .	5	. .	81.4	134.7	37	306	500	2.5	. . .	Slam	esed.	500	2.5	1.500	57.2	536	536	2,680	Av. steam pressure, 80 lbs. Av. water pressure, 127.4 lbs.
4	. .	. .	4	02	30	2	30	79.7	134.6	. . .	. .	500	2.5	. . .	Slam	esed.	500	2.5	1.509	57.2	536	536	1,340	Line No. 2, 58.2 lbs. = 533 galls.
[3] 4	02	30	4	07	25	4	55	89.0																
4	07	25	4	12	30	5	05	80.8	94.2	36	. .	200	2.5	1.75	48.6	653	200	2.5	. . .	Slame	sed	653	3,319	8 min. 5 sec.
4	12	30	4	14	30	2	. .	71.0	117.8	. . .	366	200	2.5	1.75	59.7	722	200	2.5	. .	Slame	sed	722	1,444	Av. steam pressure, 75.3 lbs. Av. water pressure, 97.2 lbs.
4	14	30	4	15	30	1	. .	55.5	70.8	. . .	. .	200	2.5	1.75	53.1	682	200	2.5	. . .	Slame	sed	682	682	Line No. 1, 51.7 lbs. = 674 galls.
4	15	30	4	16	30	1	. .	48.0	109.3	. . .	. .	200	2.5	1.75	28.3	499	200	2.5	. . .	Slame	sed	499	499	
. .	. .	. .	[4] 4	16	30	. .	. .	48.0																
						Average,		78.4	123.3														84,402	

Duration of test, 2 h. 59 min. 30 sec.
Length of time that pumps were running, 2 h. 37 min. 45 sec.
Total pounds of coal used, 2,361.
Total pounds water evaporated, 5,273.

[1] Line No. 1 shut off in order to change hose.
[3] Shut down in order to change hose, etc.

Pounds of water evaporated per pound of coal, 2.23.
Pounds of water evaporated per pound of coal from and at 212°, 2.66.
Duty in foot-pounds per 100 pounds of coal, 5,900,000 lbs.
Coal used per square foot of grate per hour, 191 lbs.

[2] Shut down in order to change nozzle, etc.
[4] Shut down at 4.16-30 P.M.

Engine No. 14. Tested October 25, 1893. Style, Amoskeag.

Size, 7.662 in. × 4.40 in. × 7.90 in. Capacity at 300 Revolutions, 594 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Gls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	03	30	. .	. .	. .	. .	. .	29.5																
[2] 1	05	30	1	15	. .	9	30	67.8	67.4	39		400	2.5	1.141	29.9	211	400	2.5	1.127	33.4	216	427	4,056	
1	15	. .	1	30	. .	15	. .	80.3	111.1	38	270	400	2.5	1.141	46.2	263	400	2.5	1.127	48.4	261	524	7,860	37 min. 10 sec. Av. steam pressure, 79.2 lbs. Av. water pressure, 108.5 lbs. Line No. 1, 46.5 lbs. = 256 galls. Line No. 2, 46.5 lbs. = 256 galls. Total, 512 galls.
1	30	. .	1	43	40	13	40	80.0	107.2	38		400	2.5	1.141	43.6	256	400	2.5	1.127	45.7	254	510	6,970	
[3] 1	43	40	1	44	. .	. .	20																	
1	44	. .	1	52	30	8	30	76.1	106.1	38	268	400	2.5	1.141	43.0	254	400	2.5	1.127	45.2	252	506	4,301	
[4] 1	52	30	2	. .	. .	7	30	74.3	92.4	18	243	400	2.5	1.141	36.8	234	400	2.5	1.127	38.3	232	466	3,495	12 min. Av. steam pressure, 74.0 lbs. Av. water pressure, 92.6 lbs. Line No. 1, 38.5 lbs. = 233 galls. Line No. 2, 38.5 lbs. = 233 galls. Total, 466 galls.
2	. .	. .	2	04	30	4	30	73.5	92.8	18	. .	400	2.5	1.141	36.1	232	400	2.5	1.127	38.6	233	465	2,092	
[5] 2	04	30	2	05	30	1	. .	75.5	104.3	38	. .	400	2.5	1.141	42.0	251	400	2.5	1.127	45.0	252	503	503	
2	05	30	2	10	. .	4	30	52.8	109.7	38	. .	400	2.5	1.141	43.0	254	400	2.5	1.127	45.2	252	506	2,277	
2	10	. .	2	12	15	2	15	76.5	110.8	38	. .	400	2.5	1.141	43.3	254	400	2.5	1.127	45.5	253	507	1,141	
[6] 2	12	15	2	13	. .	. .	45	82.0	144.0	42	. .	. .	. .	. . . .	. .	. .	400	2.5	1.127	62.9	298	298	224	

2	13	. .	2	30	. .	17	. .	78.4	104.7	38.5	283	400	2.5	1.263	34.0	280	400	2.5	1.127	44.9	251	531	9,027	52 min. Av. steam pressure, 78.3 lbs.
2	30	. .	3	. .	. .	30	. .	79.2	105.3	38.5	278	400	2.5	1.263	33.7	278	400	2.5	1.127	44.9	251	529	15,870	Av. water pressure, 104.8.
3	. .	. .	3	05	. .	5	. .	72.3	102.0	39	268	400	2.5	1.263	31.6	269	400	2.5	1.127	42.1	243	512	2,560	Line No. 1, 35.2 lbs. = 278 galls. Line No. 2, 44.2 lbs. = 250 galls. Total, 528 galls.
[7] 3	05	. .	3	05	40	. .	40	84.0	144.3	. . .	. .	. .	. .	. .	. . .	. .	400	2.5	1.127	65.7	304	304	202	
3	05	40	3	30	30	24	50	82.9	178.4	43	173	600	2.5	1.263	46.1	325	. .	. .	. . .	. . .	. .	325	8,070	
[8] 3	30	30	3	37	. .	6	30																	
3	37	. .	3	43	15	6	15	62.6	107.3	41	232	450	2.5	Siam	esed.		550	2.5	1.509	42.2	460	460	2,875	
[9] 3	43	15	3	45	15	2																		
3	45	15	3	46	30	1	15	83.0	117.3	41	. .	500	2.5	Siam	esed.	. .	500	2.5	1.509	35.2	420	420	525	
3	46	30	4	. .	. .	13	30	78.2	122.2	39.5	270	500	2.5	Siam	esed.	. .	500	2.5	1.509	48.8	495	495	6,682	
4	. .	. .	4	03	15	3	15	69.0	116.4	41.0	. .	500	2.5	Siam	esed.	. .	500	2.5	1.509	45.5	477	477	1,550	
[10] 4	03	15	4	06	30	3	15																	
[11] 4	06	30	4	07	45	1	15																	
4	07	45	4	09	. .	1	15																	
4	09	. .	4	16	. .	7	. .	63.5	80.7	36	. .	200	2.5	1.75	38.5	580	200	2.5	Siam	esed.	. .	580	4,060	
[12] 4	16	. .	4	19	. .	3	. .	45.0	79.9	. . .	. .	200	2.5	1.75	37.5	575	200	2.5	Siam	esed.	. .	575	1,725	
4	19	. .	4	20	. .	1	. .	62.0	111.4	. . .	. .	200	2.5	1.75	45.8	633	200	2.5	Siam	esed.	. .	633	633	
. .	. .	. .	[13] 4	22	. .	. .	. .	30.0																
						Average,		75.7	113.8	. . .	. .	. .	. .	. . .	. . .	. .	. .	. .	. . .	. . .	. .	. .	86,698	

Duration of test, 3 h. 18 min. 30 sec.
Length of time that pumps were running, 2 h. 59 min. 55 sec.
Total pounds coal used, 2,071.
Total pounds water evaporated, 6,188.

[1] Started new fire.
[2] Started pumps at 1.05-30 P.M.
[3] Shut down for 20 seconds.
[4] Gate on main partially closed.
[5] Gate on main fully opened.
[6] Line No. 1 shut off in order to change nozzle.
[7] Line No. 1 shut off in order to change hose.
[8] Shut down in order to change hose.

Pounds of water evaporated per pound coal, 2.99.
Pounds of water evaporated per pound coal, from and at 212°, 3.57.
Duty in foot-pounds per 100 pounds coal, 5,882,000.
Coal used per square foot of grate per hour, 141.6 lbs..

[9] Shut down in order to equalize lengths of hose.
[10] Shut down to change hose, etc.
[11] Started at 4.06-30 P.M., but had to shut down to tighten hose connections.
[12] At 4.16 P.M. started to run down.
[13] Shut down at 4.22 P.M.

Engine No. 27. Tested October 24, 1893. Style, Amoskeag.

Size, 7.651 in. × 4.50 in. × 7.89 in. Capacity at 300 Revolutions, 619 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	21	15	. .	. .	. .	. .	. .	23.0																
[2] 1	23	30	1	25	30	2	. .	33.0	55.8	. . .	. .	500	2.5	1.263	16.4	195	500	2.5	1.141	19.6	171	366	732	
1	25	30	1	28	30	3	. .	39.7	84.8	37.2	. .	500	2.5	1.263	24.6	237	500	2.5	1.141	31.7	218	455	1,365	41 min. 30 sec. Average steam pressure, 62.7 lbs. Average water pressure, 110.3 lbs. Line No. 1, 34.0 lbs. = 273 galls. Line No. 2, 43.2 lbs. = 247 galls. Total, 520 galls.
1	28	30	1	36	. .	7	30	46.4	107.0	36.7	247	500	2.5	1.263	29.3	259	500	2.5	1.141	39.2	242	501	3,757	
1	36	. .	1	57	30	21	30	72.7	119.4	35.7	269	500	2.5	1.263	36.1	288	500	2.5	1.141	44.5	258	546	11,739	
1	57	30	2	. .	. .	2	30	62.0	105.8	. . .	254	500	2 5	1.263	33.2	276	500	2.5	1.141	40.1	245	521	1,302	
2	. .	. .	2	05	. .	5	. .	70.0	115.3	. . .	. .	500	2.5	1.263	34.7	282	500	2.5	1.141	42.2	252	534	2,670	
2	05	. .	2	05	15	. .	15	83.5	123.3															
2	05	15	2	20	. .	14	45	83.1	129.8	36.0	264	500	2.5	1.133	51.7	272	500	2.5	1.141	48.2	268	540	7,965	
2	20	. .	2	30	. .	10	. .	73.9	109.2	5	230	500	2.5	1.133	43.1	250	500	2.5	1.141	40.0	243	493	4,930	37 min. 30 sec. Average steam pressure, 70.4 lbs. Average water pressure, 110.8 lbs. Line No. 1, 43.5 lbs. = 248 galls. Line No. 2, 43.5 lbs. = 248 galls. Total, 496 galls.
2	30	. .	2	35	. .	5	. .	61.6	100.4	5	. .	500	2.5	1.133	40.2	241	500	2.5	1.141	37.0	235	476	2,380	
2	35	. .	2	37	. .	2	. .	55.5	95.3	5	. .	500	2.5	1.133	37.5	233	500	2.5	1.141	34.7	228	461	922	
2	37	. .	2	41	. .	4	. .	47.2	82.8	5	. .	500	2.5	1.133	31.6	214	500	2.5	1.141	29.2	209	423	1,692	
2	41	. .	2	42	45	1	45	39.0	71.3	5	. .	500	2.5	1.133	26.6	196	500	2.5	1.141	24.1	190	386	676	
[4] 2	42	45	2	49	30	6	45																	

2	49	30	2	51	. .	1	30	43.5	84.3	5	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	25.2	241	241	361	55 min. 45 sec. Average steam pressure, 79 8 lbs. Average water pressure, 187.7 lbs. Line No. 2, 57.7 lbs. = 356 galls.
2	51	. .	2	52	. .	1	. .	48.0	105.8	5	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	30.5	264	264	264	
2	52	. .	2	53	. .	1	. .	60.0	137.3	5	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	37.7	291	291	291	
2	53	. .	2	54	. .	1	. .	69.0	157.3	5	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	42.2	311	311	311	
2	54	. .	3	. .	. .	6	. .	79.8	173.8	5	176	. .	. .	. . .	. . .	. . .	500	2.5	1.263	50.8	341	341	2,046	
3	. .	. .	3	10	. .	10	. .	83.1	177.8	5	176	. .	. .	. . .	. . .	. . .	500	2.5	1.263	52.8	348	348	3,480	
3	10	. .	3	21	.	11	. .	86.6	178.5	7 vac.	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	54.4	352	352	3,872	
3	21	. .	3	30	. .	9	. .	82.8	218.4	. . .	194	. .	. .	. . .	. . .	. . .	500	2.5	1.263	63.7	382	382	3,438	
3	30	. .	3	42	30	12	30	79.3	211.3	39	192	. .	. .	. .	. . .	. . .	500	2.5	1.263	63.9	383	383	4,787	
3	42	30	3	45	15	2	45	76.0	199.8	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	60.1	371	371	1,020	
[5] 3	45	15	3	49	. .	3	45																	
3	49	. .	3	55	. .	6	. .	86.7	90.8	35.0	292	200	2.5	1.75	42.1	607	200	2.5	. . .	Siame	sed.	607	3,642	
3	55	. .	3	56	. .	1	. .	49.0	77.2	. . .	. .	200	2.5	1.75	35.4	556	200	2.5	. . .	Siame	sed.	556	556	
[6] 3	56	. .	4	. .	. .	4																		
4	. .	. .	4	02	. .	2	. .	43.0																
4	02	. .	4	05	. .	3	. .	63.0																
4	05	. .	4	07	. .	2	. .	85.0																
4	07	. .	4	09	. .	2	. .	102.0	95.7	. . .	306	200	2.5	1.75	42.1	607	200	2.5	. . .	Siame	sed.	607	1,214	
4	09	. .	4	10	. .	1	. .	76.0	97.7	. . .	306	200	2.5	1.75	47.3	644	200	2.5	. . .	Siame	sed.	644	644	
4	10	. .	4	14	. .	4	. .	39.7	78.8	. . .	278	200	2.5	1.75	34.6	551	200	2.5	. . .	Siame	sed.	551	2,204	
4	14	. .	4	15	30	1	30	26.0	50.7	. . .	. .	200	2.5	1.75	20.2	421	200	2.5	. . .	Siame	sed.	421	631	
. .	. .	. .	[7] 4	15	30	. .	. .	23.0																
						Average,		71.5	136.4														68,891	

Duration of test, 2 h. 54 min. 15 sec.
Length of time that pumps were running, 2 h. 30 min. 15 sec.
Total pounds coal used, 1,716.
Total pounds water evaporated, 4,150.
Pounds of water evaporated per pound coal, 2.42.
Pounds of water evaporated per pound coal, from and at 212°, 2.88.
Duty in foot-pounds per 100 pounds coal, 8,112,900.
Coal used per square foot of grate per hour, 138 4 pounds.

[1] Started new fire 1.21–15 P.M.
[2] Started pumps at 1.23–30 P.M.
[3] Shut to change nozzle.
[4] The steam ran down so quickly that the engine was shut down in order to raise steam.
[5] Shut down to change hose, etc.
[6] Shut down to get up steam. Unable to hold steam.
[7] Shut down at 4.15.30 P.M.

Engine No. 27. Tested November 3, 1893. Second trial. Style, Amoskeag.

Size, 7.651 in. × 4.50 in. × 7.89 in. Capacity at 300 Revolutions, 619 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	03	30	. .	. .	. .	. .	. .	27																
[2] 1	06	. .	1	07	. .	1	. .	51	67.3	. . .	. .	500	2.5	1.131	43.1	250	500	2.5	1.127	43.7	248	498	498	
1	07	. .	1	08	. .	1	. .	63	112.8	. . .	. .	500	2.5	1.131	48.8	265	500	2.5	1.127	48.2	260	525	525	
1	08	. .	1	09	. .	1	. .	77	128.3	. . .	. .	500	2.5	1.131	55.0	282	500	2.5	1.127	54.2	276	558	558	
1	09	. .	1	25	30	16	30	97.5	148.4	35.5	291	500	2.5	1.131	61.4	297	500	2.5	1.127	59.8	290	587	9,685	16 min. 30 sec. Av. steam pressure, 97.5 lbs. Av. water pressure, 148.4 lbs. Line No. 1, 61.0 lbs. = 293.5 galls. Line No. 2, 61.0 lbs. = 293.5 galls. Total, 587 galls.
[3] 1	25	30	1	26	30	1	. .	99	169.3	. . .	. .	500	2.5	1.131	71.3	320	. .	. .	. . .	. . .	. .	320	320	
1	26	30	1	30	. .	3	30	99.3	152.4	34	307	500	2.5	1.131	61.1	297	500	2.5	1.263	45 8	323	620	2,170	11 min. 50 sec. Av. steam pressure, 93.3 lbs. Av. water pressure, 147.8 lbs. Line No. 1, 60.5 lbs. = 292 galls. Line No. 2, 46.0 lbs. = 317 galls. Total, 609 galls.
1	30	. .	1	38	20	8	20	90.8	145.9	34.5	300	500	2.5	1.131	58.2	290	500	2.5	1.263	43.1	314	604	5,033	
[4] 1	38	20	1	39	20	1	. .	93	179.8	42	. .	500	2.5	1.131	73.0	324	. .	. .	. . .	. . .	. .	324	324	
1	39	20	1	42	. .	2	40	95.5	151.3	35	314	500	2.5	1.131	57.6	287	500	2.5	1.263	42.2	310	597	1,592	
1	42	. .	1	45	. .	3	. .	73	133.9	35	290	500	2.5	1.131	54.3	280	500	2.5	1.263	39.9	300	580	1,740	
1	45	. .	2	. .	. .	15	. .	85.2	150.2	35	302	500	2.5	1.131	59.0	291	500	2.5	1.263	44.5	319	610	9,150	41 min. 10 sec. Average steam pressure, 78.7 lbs. Average water pressure, 142.7 lbs.
2	. .	. .	2	03	30	3	30	69.2	135.8	. . .	. .	500	2.5	1.131	53.8	278	500	2.5	1.263	39.4	300	578	2,023	

2	03	30	2	04	30	1	. .	74	141.8	. . .	. .	500	2.5	1.131	55.8	283	500	2.5	1.263	41.0	306	589	589	Line No. 1, 57.5 lbs. = 285 galls. Line No. 2, 43.5 lbs. = 309 galls. Total, 594 galls.
2	04	30	2	07	30	3	. .	88.3	152.1	. . .	304	500	2.5	1.131	60.3	295	500	2.5	1.263	44.7	319	614	1,842	
2	07	30	2	15	30	8	. .	77.4	142.6	35	296	500	2.5	1.131	57.0	286	500	2.5	1.263	42.1	310	596	4,768	
2	15	30	2	20	30	5	. .	57.4	120.1	. . .	278	500	2.5	1.131	47.5	262	500	2.5	1.263	35.7	286	548	2,740	
2	20	30	2	22	30	2	. .	46.5	107.8	. . .	248	500	2.5	1.131	41.8	246	500	2.5	1.263	31.2	267	513	1,026	
2	22	30	2	24	30	2	. .	31.0	87.8	. . .	. .	500	2.5	1.131	33.9	221	500	2.5	1.263	25.5	242	463	926	
[5] 2	24	30	2	27	30	3	. .	27	103.3	42	124	. .	. .	. . .	. . .	. . .	500	2.5	1.263	31.1	267	267	801	
2	27	30	2	28	10	. .	40	39	159.3	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	40.2	304	304	203	
2	28	10	2	30	30	2	20	57	135.8	36	292	500	2.5	1.131	52.1	274	500	2.5	1.263	39.7	301	575	1,342	11 min. 20 sec. Av. steam pressure, 72.5 lbs. Av. water pressure, 147.1 lbs. Line No. 1, 59.5 lbs. = 290 galls. Line No. 2, 45.0 lbs. = 314 galls. Total, 604 galls.
2	30	30	2	39	30	9	. .	76.5	150.0	35	302	500	2.5	1.131	59.7	293	500	2.5	1.263	44.4	318	611	5,499	
2	39	30	2	42	30	3	. .	98	149.8	35	306	500	2.5	1.259	43.6	313	500	2.5	1.263	42.5	312	625	1,875	7 min. 20 sec. Av. steam pressure, 79.4 lbs. Av. water pressure, 131.3 lbs. Line No. 1, 38 lbs. = 288 galls. Line No. 2, 38 lbs. = 288 galls. Total, 576 galls.
2	42	30	2	44	30	2	. .	79.5	130.8	. . .	284	500	2.5	1.259	36.5	286	500	2.5	1.263	36.5	290	576	1,152	
2	44	30	2	46	50	2	20	55.2	107.8	36	. .	500	2.5	1.259	29.3	256	500	2.5	1.263	28.6	256	512	1,195	
[6] 2	46	50	2	47	50	1	. .	25	95.8	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	26.8	247	247	247	
[7] 2	47	50	2	48	. .	. .	10	19.5																
2	48	. .	2	51	15	3	15	46.5																
2	51	15	2	53	30	2	15	87	138.8	. . .	310	500	2.5	1.259	41.8	306	500	2.5	1.263	41.4	308	614	1,381	17 min. 35 sec. Average steam pressure, 104.7 lbs. Average water pressure, 134.0 lbs. Line No. 1, 40.7 lbs. = 298 galls. Line No. 2, 40.7 lbs. = 298 galls. Total, 596 galls.
2	53	30	3	. .	. .	6	30	106.7	133.6	35	293	500	2.5	1.259	40.2	300	500	2.5	1.263	39.5	300	600	3,900	
3	. .	. .	3	02	30	2	30	108	132.6	. . .	. .	500	2.5	1.259	39.0	296	500	2.5	1.263	38.6	297	593	1,483	
3	02	30	3	08	50	6	20	107.5	133.3	36	. .	500	2.5	1.259	36.0	285	500	2.5	1.263	39.3	300	585	3,705	

[1] Started new fire at 1.03-30 P.M.
[2] Started pumps at 1 06 P.M.
[3] Line No. 2 shut off in order to change nozzle.
[4] Line No. 2 shut off in order to tighten couplings.
[5] Line No. 1 shut off in order to get up steam quickly.
[6] Line No. 1 shut off in order to get up steam quickly.
[7] Shut down in order to get up steam.

Engine No. 27. Tested November 3, 1893. Second trial. Style, Amoskeag. — *Concluded.*

Size, 7.651 in. × 4.50 in. × 7.89 in. Capacity at 300 Revolutions, 619 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 3	08	50	3	12	. .	3	10	103.3	162.6	41	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	50.5	340	340	1,077	
3	12	. .	3	15	30	3	30	106	114.1	33	306	500	3	1.259	51.1	339	500	2.5	1 263	37.0	291	630	2,205	
3	15	30	3	19	30	4	. .	63	115.5	. .	. .	500	3	1.259	46.7	323	500	2.5	1.263	33.4	277	600	2,400	18 min. Average steam pressure, 82 lbs. Average water pressure, 128.1 lbs. Line No. 1, 55 lbs. = 347 galls. Line No. 2, 39.3 lbs. = 293 galls. Total, 640 galls.
3	19	30	3	25	30	6	. .	82.3	136.9	33	330	500	3	1.259	56.6	357	500	2.5	1.263	39.7	301	658	3,948	
3	25	30	3	28	30	3	. .	86.7	145.1	. . .	. .	500	3	1.259	60.4	369	500	2.5	1.263	41.7	309	678	2,034	
3	28	30	3	30	. .	1	30	66.5	124.8	36	. .	500	3	1.259	52.3	342	500	2.5	1.263	36.2	289	631	946	
[2] 3	30	. .	3	33	10	3	10	93.7																
3	33	10	3	35	. .	1	50	96	100.8	. . .	. .	500	2.5	1.509	41.5	457	500	2.5	Siam	esed.	. .	457	837	16 min. 20 sec. Average steam pressure, 75.5 lbs. Average water pressure, 154.7 lbs. Line No. 1, 65.7 lbs. = 566 galls.
3	35	. .	3	49	30	14	30	72.9	161.5	36.5	287	500	2.5	1.509	66.7	579	500	2.5	Siam	esed.	. .	579	8,396	
[2] 3	49	30	3	52	40	3	10	104.7																

3	52	40	3	54	30	1	50	97.5	77.2	. . .	. .	200	2.5	1.75	42.3	608	200	2.5	Siam	esed.	. .	608	1,114	
3	54	30	3	59	. .	4	30	92	116.4	. . .	340	200	2.5	1.75	53.8	686	200	2.5	Siam	esed.	. .	686	3,087	15 min. 20 sec.
3	59	. .	4	. .	. .	1	. .	92	131.2	. . .	362	200	2.5	1.75	58.6	716	200	2.5	Siam	esed.	. .	716	716	Average steam pressure, 84.5 lbs.
4	. .	. .	4	07	. .	7	. .	78.5	131.2	32.5	350	200	2.5	1.75	57.7	711	200	2.5	Siam	esed.	. .	711	4,977	Average water pressure, 119.5 lbs. Line No. 1, 53.7 lbs. = 687 galls.
4	07	. .	4	08	. .	1	. .	62	115.7	. . .	306	200	2.5	1.75	46.3	636	200	2.5	Siam	esed.	. .	636	636	
. .	. .	. .	[3] 4	08	30	. .	. .	33																
						Average,		82.4	138.1														100,665	

Duration of test, 3 h. 5 min.
Length of time that pumps were running, 2 h. 52 min. 15 sec.
Total pounds coal used, 2,734.
Total pounds water evaporated, 6,219.

Pounds water evaporated per pound coal, 2.27.
Pounds of water evaporated per pound coal, from and at 212°, 2.72.
Duty in foot-pounds per 100 pounds coal, 7,338,900.
Coal used per square foot of grate per hour, 207.6 lbs.

[1] Line No. 1 shut down in order to change hose.

[2] Shut down in order to change hose, etc.

[3] Shut down at 4.08-30 P.M.

Engine No. 43. Tested October 20, 1893. Style, Clapp & Jones.

Size, 6.988 in. × 4.376 in. × 7 in. Capacity at 300 Revolutions, 525 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	in	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 12	51	30	. .	. .	. .	. .	. .	26																
[2] 12	54	. .	12	55	30	1	30	77	81.4	. . .	. .	400	2.5	1.133	43.4	251	400	2.5	1.141	41.6	250	501	751	
12	55	30	12	57	30	2	. .	71.5	102.9	. . .	. .	400	2.5	1.133	49.8	267	400	2.5	1.141	47.9	267	534	1,068	
12	57	30	1	. .	. .	2	30	71.3	113.7	. . .	. .	400	2.5	1.133	53.3	276	400	2.5	1.141	50.8	276	552	1,380	48 min. Average steam pressure, 73.2 lbs. Average water pressure, 115.7 lbs. Line No. 1, 54.7 lbs. = 278 galls. Line No. 2, 54.7 lbs. = 278 galls. Total, 556 galls.
[3] 1	. .	. .	1	04	. .	4	. .	72	120.0	. . .	.	. .	. .	. . .	. . .	. . .	400	2.5	1.141	45.2	260	260	1,040	
1	04	. .	1	05	. .	1	. .	72	115.0	. . .	. .	400	2.5	1.133	36.3	229	400	2.5	1.141	35.5	230	459	459	
1	05	. .	1	30	. .	25	. .	73.1	116.2	. . .	332	400	2.5	1.133	53.9	278	400	2.5	1.141	51.6	278	556	13,900	
1	30	. .	1	47	. .	17	. .	73.5	119.9	32	. .	400	2.5	1.133	54.6	280	400	2.5	1.141	52.4	280	560	9,520	
[4] 1	47	. .	1	47	20	. .	20	75	171.4	. . .	. .	. .	. .	. . .	. . .	. . .	400	2.5	1.141	76.5	337	337	112	
1	47	20	1	49	20	2	. .	73.5	116.4	. . .	. .	400	2.5	1.263	38.3	297	400	2.5	1.141	48.5	270	567	1,134	
[5] 1	49	20	1	50	. .	. .	40	70	161.4	. . .	. .	. .	. .	. . .	. . .	. . .	400	2.5	1.141	69.5	321	321	214	57½ min. Average steam pressure, 70.8 lbs. Average water pressure, 116.7 lbs. Line No. 1, 42 lbs. = 303 galls. Line No. 2, 53 lbs. = 274 galls. Total, 577 galls.
1	50	. .	2	. .	. .	10	. .	66.3	111.2	33	345	400	2.5	1.263	39.4	301	400	2.5	1.141	49.1	272	573	5,730	
2	. .	. .	2	30	. .	30	. .	72.5	118.2	33	354	400	2.5	1.263	40.7	304	400	2.5	1.141	51.3	276	580	17,400	
2	30	. .	2	45	30	15	30	70.1	115.5	34	346	400	2.5	1.263	39.9	302	.	. .	. . .	50.1	274	576	8,928	

2	45	30	2	51	30	6																		
2	51	30	2	54	30	3	. .	82.7	73.7	. . .	. .	500	2.5	1.133	33.3	219	500	2.5	1.141	31.9	219	438	1,314	26 min. 50 sec.
2	54	30	2	56	. .	1	30	77.0	81.4	. . .	. .	500	2.5	1.133	43.4	251	500	2.5	1.141	40.9	248	499	748	Average steam pressure, 75.2 lbs. Average water pressure, 122.5 lbs.
2	56	. .	3	. .	. .	4	. .	75.8	131.6	. . .	333	500	2.5	1.133	54.0	279	500	2.5	1.141	50.8	275	554	2,216	Line No. 1, 50.7 lbs. = 268 galls. Line No. 2, 50.7 lbs. = 268 galls.
3	. .	. .	3	18	20	18	20	73.7	131.9	35	334	500	2.5	1.133	53.0	276	500	2.5	1.141	49.6	273	549	10,0[illegible]5	Total, 536 galls.
[7] 3	18	20	3	19	. .	. .	40	66.5	163.4	. . .	. .	. . .	. .	. . .	. . .	. . .	500	2.5	1.141	62.5	306	306	204	
[8] 3	19	. .	3	22	20	3	20																	
3	22	20	3	30	. .	7	40	72.8	132 0	34	338	500	2.5	Ring 1.25	55.8	263	500	2.5	1.141	49.6	273	536	4,110	20 min. 10 sec. Average steam pressure, 72.9 lbs.
3	30	. .	3	42	30	12	30	73.0	134.4	33.5	334	500	2.5	1.25	55.8	263	500	2.5	1.141	49.4	272	535	6,687	Average water pressure, 133.5 lbs. Line No. 1, 56 lbs. = 263 galls. Line No. 2, 52.2 lbs. = 272 galls.
[9] 3	42	30	3	43	30	1	. .	63.5	124.4	. . .	. .	500	2.5	1.25	54.0	258	500	2.5	1.141	48.0	268	526	526	Total, 535 galls.
3	43	30	3	44	30	1	. .	53.0	111.4	. . .	. .	500	9.5	1.25	50.8	250	500	2.5	1.141	44.7	258	508	508	
3	44	30	3	46	. .	1	30	43.0	98.4	35	280	500	2.5	1.25	42.2	229	500	2.5	1.141	37.6	238	467	700	
. .	. .	. .	[10] 3	47	. .	. .	. .	26.0																
						Average,		72.1	119.6														88,714	

Duration of test, 2 h. 55 min. 30 sec.
Length of time that pumps were running, 2 h. 42 min. 40 sec.
Total pounds coal used, 1,049.
Total pounds water evaporated, 5,168.

[1] Started new fire at 12.51–30 P.M.
[2] Started pumps at 12.54 P.M.
[3] At 1 P.M. coupling at engine on Line No. 1 blew off.
[4] Line No. 1 shut off in order to change nozzle.
[5] Line No. 1 shut off in order to tighten couplings.

Pounds of water evaporated per pound coal, 4.93.
Pounds of water evaporated per pound coal, from and at 212°, 5.87.
Duty in foot-pounds per 100 pounds coal, 14,026,000.
Coal used per square foot of grate per hour, 103.3 lbs.

[6] Shut down in order to change hose. During this time the fire was cleansed.
[7] Line No. 1 shut off in order to change nozzle.
[8] Shut down in order to change hose, etc.
[9] Started to run out.
[10] Shut down at 3.47 P.M., with steam at same pressure as when the test began.

Engine No. 43. Tested November 16, 1893. Drafting. Style, Clapp & Jones.

Size, 6.988 in. × 4.376 in. × 7 in. Capacity at 300 Revolutions, 525 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Lift.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Feet.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 10	39	. .	. .	. .	. .	. .	. .	29.0																
[2] 10	39	. .	11	. .	. .	. .	. .	30.0 to 128.5																
11	. .	. .	11	03	. .	3	. .	121.7	65.7	. . .	. .	500	2.5	1.131	. . .	200	500	2.5	1.127	. . .	207	407	1,121	11 min. 20 sec. Average steam pressure, 98.2 lbs. Average water pressure, 93.1 lbs. Line No. 1, 38.5 lbs. = 233.5 galls. Line No. 2, 38.5 lbs. = 233.5 galls. Total, 467 galls.
11	03	. .	11	08	30	5	30	92.2	111.8	13.5	456	500	2.5	1.131	44.6	254	500	2.5	1.127	45.2	252	506	2,783	
11	08	30	11	10	30	2	. .	89.0	92.2	. . .	. .	500	2.5	1.131	36.3	229	500	2.5	1.127	40.3	237	466	932	
11	10	30	11	11	20	. .	50	75.0	69.7	. . .	. .	500	2.5	1.131	30.3	209	500	2.5	1.127	33.1	216	425	355	
[3] 11	11	20	11	13	30	2	10	90.0																
11	13	30	11	17	. .	3	30	65.5	76.7	13.3	354	500	2.5	1.131	31.8	214	500	2.5	1.127	31.5	210	424	1,484	12 min. 40 sec. Average steam pressure, 87.5 lbs. Average water pressure, 87.1 lbs. Line No. 1, 33.5 lbs. = 217.5 galls. Line No. 2, 33.5 lbs. = 217.5 galls. Total, 435 galls.
11	17	. .	11	20	30	3	30	104.2	103.4	. . .	. .	500	2.5	1.131	38.4	235	500	2.5	1.127	38.2	232	467	1,635	
11	20	30	11	24	. .	3	30	82.5	90.7	. . .	396	500	2.5	1.131	32.4	216	500	2.5	1.127	32.2	213	429	1,501	
11	24	. .	11	26	10	2	10	104.0	71.3	13.2	. .	500	2.5	1.131	29.2	205	500	2.5	1.127	29.1	203	408	884	
11	26	10	11	29	. .	2	50	110.5	155.7	. . .	. .	500	2.5	1.131	62.8	300	. .	. .	. . .	. . .	. .	300	850	
11	29	. .	11	30	. .	1	. .	88.0	140.7	. . .	. .	500	2.5	1.131	56.3	285	. .	. .	. . .	. . .	. .	285	285	
11	30	. .	11	30	10	. .	10	49.5	93.7	. . .	. .	500	2.5	1.131	43.8	252	. .	. .	. . .	. . .	. .	252	42	

[4] 11	30	10	11	42	. .	11	50	75.0 to 126.0	. . .	13.2															
11	42	. .	11	44	10	2	10	108.5	139.2	. . .	. .	500	2.5	1.131	60.3	295	. .	. .	. . .	. . .	. .	. .	639		
11	44	10	11	46	. .	1	50	116 0	99.7	13.0	324	500	2.5	1.131	39.9	240	500	2.5	1.127	39.1	235	475	870		
11	46	. .	11	53	30	7	30	121.7	125.4	. . .	337	500	2.5	1.131	50.9	270	500	2.5	1.127	51.8	270	540	4,050	16 min.	
11	53	30	11	54	30	1	. .	97.5	115.7	. . .	. .	500	2.5	1.131	42.8	249	500	2.5	1.127	44.7	250	499	499	Average steam pressure, 109.3 lbs. Average water pressure, 116.5 lbs.	
11	54	30	11	57	30	3	. .	87.7	104.0	12.8	298	500	2.5	1.131	40.6	242	500	2.5	1.127	42.6	245	487	1,461	Line No. 1, 47.25 lbs. = 258.5 galls. Line No. 2, 47.25 lbs. = 258.5 galls.	
11	57	30	12	. .	10	2	40	98.5	117.3	. . .	. .	500	2.5	1.131	46.8	260	500	2.5	1.127	49.6	264	524	1,398	Total, 517 galls.	
[5] 12	. .	10	12	. .	40	. .	30	108.0	139.0	. . .	. .	500	2.5	1.131	63.5	303	. .	. .	. . .	. . .	. .	. .	303	152	
12	. .	40	12	02	. .	1	20	117.0	84.7	. . .	. .	500	2.5	1.131	41.3	244	500	2.5	1.263	33.3	276	520	693	13 min., 50 sec.	
12	02	. .	12	13	30	11	30	103.5	114.0	12.7	332	500	2.5	1.131	47.4	261	500	2.5	1.263	35.3	285	546	6,279	Average steam pressure, 105.9 lbs. Average water pressure, 112.4 lbs.	
12	13	30	12	14	30	1	. .	118.0	130.7	. . .	. .	500	2.5	1.131	55.0	282	500	2.5	1.263	40.6	305	587	587	Line No. 1, 48.2 lbs. = 261 galls. Line No. 2, 37.5 lbs. = 286 galls. Total, 547 galls.	
[6] 12	14	30	12	20	20	5	50	126.3	. . .	12.5															
12	20	20	12	21	40	1	20	119.0	215.7	. . .	. .	1000	2.5	1.131	60.2	295	. .	. .	. . .	. . .	. .	295	393		
[7] 12	21	40	12	22	15	. .	35																		
12	22	15	12	26	. .	3	45	113.3	205.7	12.4	. .	1000	2.5	1.259	41.3	304	. .	. .	. . .	. . .	. .	304	1,140		
12	26	. .	12	28	30	2	30	125.7	230.7	. . .	199	1000	2.5	1.259	44.1	314	. .	. .	. . .	. . .	. .	314	785		
12	28	30	12	29	30	1	. .	97.5	185.7	. . .	. .	1000	2.5	1.259	32.8	270	.	. .	. . .	. . .	. .	270	270		
12	29	30	12	30	30	1	. .	70.0	130.7	. . .	. .	1000	2.5	1.259	22.5	225	. .	. .	. . .	. . .	. .	225	225		
. .	. .	. .	[8] 12	31	20	. .	. .	46.0																	
							Average,	102.7	121.2														31,413		

Duration of test. 1 h. 31 min. 20 sec.
Length of time that pumps were running, 1 h. 10 min. 5 sec.
Total pounds coal used, 864.

Duty in foot-pounds per 100 pounds coal, 8,736,300.
Coal used per square foot of grate per hour, 163.7 lbs.

[1] Started new fire at 10.39 A.M.
[2] The hose having been left out over night it took from 10.39 to 11 A.M. to clear it of ice.
[3] Shut down on account of oil-cup breaking.
[4] Shut down in order to stop air leaking into the suction through the relief valve.

[5] Shut off Line No. 2 in order to change nozzle.
[6] Shut down in order to change hose
[7] Shut down in order to change nozzle.
[8] Shut down.

Engine No. 21. Tested November 9, 1893. Style, Clapp & Jones.

Size, 6.998 in. × 4.375 in. × 7 in. Capacity at 300 Revolutions, 524 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	06	10	. .	. .	. .	. .	. .	27.0																
[2] 1	08	30	1	12	.	3	30	70.3	82.4	35	. .	500	2.5	1.131	. . .	227	500	2.5	1.263	. . .	247	474	1.659	
1	12	. .	1	18	. .	6	. .	98.5	141.9	34	355	500	2.5	1.131	62.2	299	500	2.5	1.263	46.2	324	623	3,738	10 min. 45 sec.
1	18	. .	1	19	30	1	30	102.5	155.9	. . .	390	500	2.5	1.131	64.9	305	500	2.5	1.263	49.1	335	640	960	Average steam pressure, 82.3 lbs.
1	19	30	1	21	. .	1	30	60.0	105.4	. . .	. .	500	2.5	1.131	37.3	232	500	2.5	1.263	28.1	253	485	727	Average water pressure, 127 lbs. Line No. 1, 53.5 lbs. = 275 galls.
1	21	. .	1	22	45	1	45	28.5	69.4	. . .	. .	500	2.5	1.131	27.9	201	500	2.5	1.263	20.5	216	417	730	Line No. 2, 40.5 lbs. = 298 galls. Total, 573 galls.
[3] 1	22	45	1	25	. .	2	15	33.5	95.4	36	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	31.2	267	267	601	
1	25	. .	1	25	50	. .	50	46.0	116.4	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	41.7	309	309	258	
1	25	50	1	28	30	2	40	103.7	147.1	. . .	378	500	2.5	1.131	62.8	300	500	2.5	1.263	46.9	327	627	1,672	
1	28	30	1	30	. .	1	30	65.0	121.4	35	. .	500	2.5	1.131	60.8	295	500	2.5	1.263	44.7	320	615	923	
1	30	. .	1	31	. .	1	. .	53.0	105.4	. . .	356	500	2.5	1.131	47.4	262	500	2.5	1.263	35.4	285	547	547	
1	31	. .	1	33	. .	2	. .	86.0	141.4	. . .	374	500	2.5	1.131	58.3	290	500	2.5	1.263	43.4	314	604	1,208	
1	33	. .	1	34	. .	1	. .	45.0	90.4	. . .	. .	500	2.5	1.131	39.5	239	500	2.5	1.263	29.2	258	497	497	

1	34	. .	1	36	. .	2	. .	30.0	66.4	39	. .	500	2.5	1.131	28.3	202	500	2.5	1.263	21.7	223	425	850	48 min. 35 sec.
1	36	. .	1	36	30	. .	30	62.0	90.4	. . .	. .	500	2.5	1.131	39.5	239	500	2.5	1.263	29.5	258	497	249	Average steam pressure, 89.4 lbs. Average water pressure, 124.7 lbs.
1	36	30	1	53	30	17	. .	95.4	125.5	36	348	500	2.5	1.131	53.2	276	500	2.5	1.263	39.8	301	577	9,809	Line No. 1, 53 5 lbs. = 275 galls. Line No. 2, 41.0 lbs. = 300 galls. Total, 575 galls.
1	53	30	1	55	30	2	. .	97.5	115.4	. . .	328	500	2.5	1.131	49.0	265	500	2.5	1.263	36.9	290	555	1,110	
1	55	30	1	58	. .	2	30	55.0	90.4	. . .	. .	500	2.5	1.131	39.2	238	500	2.5	1.263	29.6	260	498	1,245	
1	58	. .	2	. .	. .	2	. .	101.0	138.9	. . .	. .	500	2.5	1.131	56.5	285	500	2.5	1.263	41.9	309	594	1,188	
[4] 2	. .	. .	2	14	25	14	25	100.6	136.0	35	357	500	2.5	1.131	57.6	287	500	2.5	1.263	42.8	312	599	8,636	
[5] 2	14	25	2	19	.	4	35	125.0																
2	19	. .	2	28	30	9	30	105.0	150.7	33.5	358	500	2.5	1.131	64.3	304	500	2.5	1.141	60.8	301	605	5,747	
2	28	30	2	30	. .	1	30	93.0	144.4	. . .	370	500	2.5	1.131	58.1	289	500	2.5	1.141	54.1	284	573	860	
2	30	.	2	40	30	10	30	92.5	144.8	33	376	500	2.5	1.131	62.6	300	500	2.2	1.141	58.8	296	596	6,258	
2	46	30	2	42	. .	1	30	64.0	110.9	. . .	. .	500	2.5	1.131	50.3	269	500	2.5	1.141	46.9	265	534	801	41 min.
2	42	. .	2	46	30	4	30	87.0	140.2	35	347	500	2.5	1.131	60.4	295	500	2.5	1.141	56.5	291	586	2,637	Average steam pressure, 90.7 lbs. Average water pressure, 140.2 lbs.
2	46	30	2	50	30	4	. .	74.7	130.1	37	. .	500	2.5	1.131	53.5	277	500	2.5	1.141	50.2	274	551	2,204	Line No. 1, 60 lbs. = 291 galls. Line No. 2, 60 lbs. = 291 galls. Total, 582 galls.
2	50	30	2	51	30	1	. .	66.0	99.4	. . .	. .	500	2.5	1.131	43.3	250	500	2.5	1.141	41.0	247	497	497	
2	51	30	2	58	. .	6	30	95.8	143.1	35	328	500	2.5	1.131	60.0	294	500	2.5	1.141	56.3	290	584	3,796	
2	58	. .	3	.	. .	2	. .	67.5	116.4	. . .	324	500	2.5	1.131	48.8	265	500	2.5	1.141	46.2	263	528	1,056	
[6] 3	. .	. .	3	04	15	4	15	115.2																
3	04	15	3	06	.	1	45	90.0	121.4	. . .	. .	500	2.5	1.131	53.0	276	500	2.5	1.263	39.5	301	577	1,011	
3	06	. .	3	30	10	24	10	112.0	138.1	36	361	500	2.5	1.131	59 0	292	500	2.5	1.263	43.6	315	607	14,669	
[7] 3	30	10	3	31	30	1	20	61.0	141.4	. . .	. .	. .	.	. . .	. . .	. . .	500	2.5	1.263	51.2	343	343	457	

[1] Start new fire at 1.06–10 P.M.
[2] Started pumps at 1.08–30 P.M.
[3] Line No. 1 shut off to raise steam.
[4] Shut down to change nozzles, etc., at 2.14–25 P.M.
[5] Shut down.
[6] Shut down in order to change nozzle, etc.
[7] Line No. 1 shut off in order to raise steam, it having run down on account of allowing too much cold water to enter boiler.

Engine No. 21. Tested November 9, 1893. Style, Clapp & Jones. — *Concluded.*

Size, 6.998 in. × 4.375 in. × 7 in. Capacity at 300 Revolutions, 524 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
3	31	30	3	36	40	5	10	42.2	109.1	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	33.5	277	277	1,431	
[1] 3	36	40	3	38	20	1	40	52.0																
3	38	20	3	42	. .	3	40	44.0	117.4	41	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	37.5	294	294	1,078	
3	42	. .	3	43	. .	1	. .	95.0	193.4	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	64.2	384	384	384	8 min. 10 sec.
3	43	. .	3	49	30	6	30	111.7	228.6	40	249	. .	. .	. . .	. . .	. . .	500	2.5	1.263	73.8	411	411	2,672	Average steam pressure, 107.9 lbs.
3	49	30	3	50	10	. .	40	90.0	193.4	. . .	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.263	69.1	398	398	266	Average water pressure, 221.4 lbs. Line No. 2, 75.5 lbs. = 407 galls.
3	50	10	3	52	. .	1	50	101.0	160.4	39	. .	500	3	1.259	68.3	392	. .	. .	. . .	. .	. .	392	718	
[2] 3	52	. .	3	59	30	7	30	116.4	221.3	38	287	500	3	1.259	99.6	473	. .	. .	. . .	. . .	. .	473	3,548	8 min. 15 sec.
3	59	30	4	. .	15	. .	45	100.0	201.9	. . .	. .	500	3	1.259	93.3	457	. .	. .	. . .	. . .	. .	457	342	Average steam pressure, 114.9 lbs. Average water pressure, 219.5 lbs. Line No. 1, 101.5 lbs. = 472 galls.
[3] 4	. .	15	4	02	. .	1	45	106.0																
4	02	. .	4	05	. .	3	. .	123.5	166.9	. . .	350	500	2.5	. . .	Siam	esed.	500	2.5	1.509	72.9	605	605	1,815	
4	05	. .	4	08	30	3	30	91.0	133.9	38	316	500	2.5	. . .	Siam	esed.	500	2.5	1.509	57.2	536	536	1,876	11 min. 25 sec.
4	08	30	4	10	30	2	. .	110.0	166.9	. . .	. .	500	2.5	. . .	Siam	esed.	500	2.5	1.509	73.0	606	606	1,212	Average steam pressure, 102.3 lbs. Average water pressure, 152.8 lbs.
4	10	30	4	12	30	2	. .	79.5	143.9	. . .	346	500	2.5	. . .	Siam	esed.	500	2.5	1.509	61.5	556	556	1,112	68 lbs. = 576 galls.
4	12	30	4	13	25	. .	55	109.0	167.4	. . .	. .	500	2.5	. . .	Siam	esed.	500	2.5	1.509	73.0	606	606	555	

[4] 4	13	25	4	16	. .	2	35	119.0	. . .	41															
4	16	. .	4	17	30	1	30	131.5	141.4	. . .	. .	500	3	1.263	68.0	395	. .	. .	. . .	. .	. .	395	593
4	17	30	4	18	45	1	15	65.0	110.9	. .	. .	560	3	1.263	52.8	347	. .	. .	. . .	. . .	. .	347	434
[5] 4	18	45	4	21	30	2	45	74.0															
[6] 4	21	30	4	29	. .	7	30	118.8	217.5	38	308	500	3	1.263	100.3	479	. .	. .	. . .	. . .	. .	479	3,593
4	29	. .	4	30	. .	1	. .	91	188.4	. . .	. .	500	3	1.263	86.8	446	. .	. .	. . .	. . .	. .	446	446
. .	. .	. .	[7] 4	30	. .	. .	. .	91															
						Average,		92.7	143.0														98,675

Duration of test, 3 h. 23 min. 50 sec.
Length of time that pumps were running, 3 h. 3 min. 55 sec.
Total pounds coal used, 2,103.
Total pounds water evaporated, 6,068.

Pounds of water evaporated per pound of coal, 2.88.
Pounds of water evaporated per pound of coal from and at 212°, 3.45.
Duty in foot-pounds per 100 pounds coal, 9,678,400.
Coal used per square foot of grate per hour, 181.6 lbs.

[1] Shut down in order to raise steam quickly.
[2] 3-in. hose fitted with 2½ in. couplings.
[3] Shut down to shift hose, etc.
[4] Shut down to change hose.
[5] Shut down to raise steam.
[6] 3-in. hose with 3 in. couplings.
[7] Shut down at 4.30 P.M. In this case the steam pressure was not run down to the same point as when the test began.

Engine No. 7. Tested October 19, 1893. Style, Clapp & Jones.

Size, 8.50 in. × 5 in. × 7 in. Capacity at 300 Revolutions, 691 Gallons.

Experiment Began.			Experimen Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec	H.	Min	Sec	Min	Sec	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Gls	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	22	. .	. .	. .	. .	. .	. .	21.0																
[2] 1	26	20	2	. .	. .	33	40	51.0	98.4	38	239	400	2.5	1.133	44.7	254	400	2.5	1.141	41.8	250	504	16,968	
2	.	. .	2	19	. .	19	. .	70.2	124.2	37	264	400	2.5	1.133	55.7	283	400	2.5	1.141	52.6	280	563	10,697	
[3] 2	19	. .	2	21	. .	2	. .	74.5	125.9	42	. .	. .	. .	. . .	. . .	. .	400	2.5	1.141	59.2	297	297	594	
2	21	. .	2	25	. .	4	. .	57.0	106.4	. . .	. .	400	2.5	1.263	37.6	293	400	2.5	1.141	43.2	255	548	2,192	24 min. Average steam pressure, 65.2 lbs. Average water pressure, 119.6 lbs. Line No. 1, 42.7 lbs. = 306 galls. Line No. 2, 53.5 lbs. = 275 galls. Total, 581 galls.
2	25	. .	2	30	. .	5	. .	70.8	125.7	35.5	278	400	2.5	1.263	43.3	314	400	2.5	1.141	53.5	283	597	2,985	
[4] 2	30	. .	2	33	. .	3	.	49.0	101.4	. . .	. .	400	2.5	1.263	36.3	288	400	2.5	1.141	46.5	264	552	1,656	
2	33	. .	2	45	. .	12	. .	69.6	126.0	35.5	287	400	2.5	1.263	42.5	312	400	2.5	1.141	52.7	281	593	7,116	
2	45	. .	3	. .	. .	15	. .	81.6	142.1	36	300	400	2.5	1.263	48.6	333	400	2.5	1.141	59.7	298	631	9,465	45 min. Average steam pressure, 85.1 lbs. Average water pressure, 147.0 lbs. Line No. 1, 52.0 lbs. = 338 galls. Line No. 2, 64.7 lbs. = 302 galls. Total, 640 galls.
3	. .	. .	3	30	. .	30	.	86.9	149.4	36	305	400	2.5	1.263	50.7	340	400	2.5	1.141	62.6	305	645	19,350	
[5] 3	30	. .	3	41	. .	11	. .	53.5																
3	41	. .	3	50	. .	9	. .	89.8	123.4	34	326	200	2.5	1.75	60.1	725	200	2.5	. . .	Siame	sed.	725	6,525	
3	50	. .	3	52	. .	2																		

3	52	. .	3	53	. .	1	. .	89.0	111.4	. . .	334	200	2.5	2.00	40.6	794	200	2 5	. . .	Siame	sed.	794	794	
3	53	. .	4	. .	. .	7	.	68.5	90.4	32	316	200	2.5	2.00	32.0	705	200	2.5	. .	Siame	sed.	705	4,935	12 min. Av. steam pres., 61.4 lbs. Av. water pres., 86.7 lbs. 31.5 lbs. = 697 galls.
4	.	. .	4	05	. .	5	. .	51.5	81.6	34	306	200	2.5	2.00	30.4	685	200	2.5	. . .	Siame	sed.	685	3,425	
4	05	. .	4	10	30	5	30	32.0	60.6	. . .	. .	200	2.5	2.00	23.7	605	200	2.5	. . .	Siame	sed.	605	3,327	
. .	. .	. .	[7] 4	12	. .	. .	. .	21.0																
						Average,		68.8	119.2	. . .	. .	. .	. .	. . .	. . .	. .	. .	. .	. . .	. . .	. .	. .	90,029	

Duration of test, 2 h. 45 min. 40 sec.
Length of time that pumps were running, 2 h. 31 min. 10 sec.
Total pounds coal used, 1,429.
Total pounds water evaporated, 5,930.

Pounds of water evaporated per pound of coal, 4.15.
Pounds of water evaporated per pound of coal, from and at 212°, 4.94.
Duty in foot-pounds per 100 pounds coal, 10,201.600.
Coal used per square foot of grate per hour, 117.3 lbs.

[1] Started new fire at 1.22 P.M.
[2] Started pumps at 1.26-20 P.M.
[3] Line No. 1 shut off to change nozzle.
[4] In coaling, kept door open so long that pressure fell.
[5] Shut down in order to change nozzles, etc.
[6] Shut down in order to change nozzle.
[7] Shut down at 4.12 P.M. with steam at same pressure as when the test began.

Engine No. 15. Tested November 13, 1893. Style, Clapp & Jones.

Size, 9.005 in. × 5.49 in. × 8 in. Capacity at 300 Revolutions, 957 Gallons.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No 1.				Line No. 2.				Line No. 3.				Line No. 4.				Total Discharge Per Minute.	Total Discharge.	
												Length of 2.5-in. Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of 2.5-in. Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of 3-in. Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of 2.5-in. Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	Lbs.	Gls	Ft.	In.	Lbs.	Gls	Ft.	In.	Lbs.	Gls	Ft.	In.	Lbs.	Gls	Galls.	Galls.	
[1] 1	12	10	. .	. .	. .	. .	. .	32.0																						
[2] 1	15	05	1	19	. .	3	55	112.8	100.7	35	. .	. .	. . .	. . .	. .	. .	. .	. . .	. .	500	1.263	. . .	300	500	1.141	. . .	240	540	2,115	
1	19	. .	1	23	50	4	50	115.1	173.9	29	. .	. .	. . .	. . .	. .	. .	. .	. . .	. .	500	1.263	79.4	426	500	1.141	70.0	323	749	3,621	
1	23	50	1	30	. .	6	10	98.0	127.8	24	298	500	1.133	50.2	269	. .	. . .	. . .	. .	500	1.263	56.0	358	500	1.141	49.0	270	897	5,531	
1	30	. .	1	32	30	2	30	104.8	132.8	25	298	500	1.133	51.5	273	. .	. . .	. . .	. .	500	1.263	57.8	364	500	1.141	50.9	276	913	2,283	
1	32	30	1	41	. .	8	30	111.9	143.9	25	294	500	1.133	57.9	289	. .	. . .	. .	. .	500	1.263	46.0	324	500	1.141	56.1	290	903	7,676	
1	41	. .	1	44	. .	3	. .	102.2	137.2	. . .	. .	500	1.133	54.3	280	. .	. . .	. . .	. .	500	1.263	41.7	309	500	1.141	53.1	282	871	2,613	64 min. 10 sec.
1	44	. .	1	54	30	10	30	113.7	135.7	24.5	301	500	1.133	54.4	280	. .	. . .	. . .	. .	500	1.263	60.2	371	500	1.141	53.0	282	933	9,797	Av. steam pressure, 107.4 lbs.
1	54	30	1	58	30	4	. .	106.0	130.3	24	305	500	1.133	52.2	274	. .	. . .	. . .	. .	500	1.263	57.5	363	500	1.141	50.4	275	912	3,648	Av. water pressure, 130.3 lbs.
1	58	30	2	. .	. .	1	30	91.5	117.5	. . .	. .	500	1.133	46.7	259	. .	. . .	. . .	. .	500	1.263	52.0	344	500	1.141	45.3	260	863	1,295	Line No. 1, 53.5 lbs. = 275 galls.
2	. .	. .	2	08	30	8	30	111.2	130.0	24	300	500	1.133	51.7	273	. .	. . .	. . .	. .	500	1.263	57.3	362	500	1.141	50.3	275	910	7,735	Line No. 3, 55.7 lbs. = 350 galls.
2	08	30	2	10	30	2	. .	86.5	112.5	. . .	. .	500	1.133	44.9	255	. .	. . .	. . .	. .	500	1.263	50.2	339	500	1.141	43.1	254	848	1,696	Line No. 4, 53.5 lbs. = 275 galls.
2	10	30	2	17	. .	6	30	111.7	126.9	22	293	500	1.133	50.5	270	. .	. . .	. . .	. .	500	1.263	55.7	357	500	1.141	49.3	271	898	5,837	Total, 900 galls.
2	17	. .	2	20	30	3	30	89.0	109.5	25	268	500	1.133	43.6	251	. .	. . .	. . .	. .	500	1.263	48.8	333	500	1.141	41.9	250	834	2,919	
2	20	30	2	28	. .	7	30	114.5	126.5	24	290	500	1.133	49.8	268	. .	. . .	. . .	. .	500	1.263	56.2	359	500	1.141	49.3	271	898	6,735	
[3] 2	28	. .	2	31	. .	3																								
[3] 2	31	. .	2	54	. .	23	. .	77.3																						
2	54	. .	2	56	. .	2	. .	119.5	75.5	28	. .	500	1.133	. . .	200	500	1.131	. . .	200	500	1.127	. . .	230	500	1.141	. . .	200	830	1,660	

2	56	..	2	58	..	2	..	110.0	109.0	...	330	500	1.133	41.6	246	500	1.131	43.3	250	500	1,127	57.6	285	500	1.141	40.0	244	1,025	2,050	35 min. 35 sec.
2	58	..	3	...	..	2	..	80.5	90.5	24	316	500	1.133	36.7	230	500	1.131	37.4	233	500	1,127	50.3	266	500	1.141	35.1	230	959	1,918	Av. stm. pr., 95.3 lbs. Av. wr. pr., 96.3 lbs.
3	...	..	3	16	30	16	30	91.7	95.3	23	326	500	1.133	38.2	235	500	1.131	39.1	237	500	1,127	52.1	271	500	1.141	36.3	233	976	16,104	Line No. 1, 39 lbs. = 235 galls.
3	16	30	3	2[1]	..	8	30	107.5	102.3	22.5	331	500	1.133	40.0	240	500	1.131	41.2	243	500	1,127	54.7	277	500	1.141	38.2	240	1,000	8,500	Line No. 2, 39.2 lbs. = 236 galls.
3	25	..	3	30	..	5	..	86.7	88.5	23	330	500	1.133	35.3	226	500	1.131	36.7	228	500	1,127	50.0	265	500	1.141	34.5	227	946	4,730	Line No. 3, 52 lbs. = 271 galls.
3	30	..	3	31	35	1	35	94.5	90.5	...	..	500	1.133	35.9	228	500	1.131	36.9	230	500	1,127	49.7	265	500	1.141	34.4	226	949	1,502	Line No. 4, 39.2 lbs. = 236 galls. Total, 978 galls.
[4]3	31	35	3	39	40	8	05	114.2																						
3	39	40	3	41	..	1	20	98.5	59.0	...	..	500	1.75	...	620	500	...	Siame	sed.	..	...	...	..	500	...	Siame	sed.	620	826	
3	41	..	3	43	..	2	..	68.0	78.0	...	..	500	1.75	53.2	684	500	...	Siame	sed.	..	...	...	..	500	...	Siame	sed.	684	1,368	
3	43	..	3	44	..	1	..	88.5	100.7	...	..	500	1.75	63.2	744	500	...	Siame	sed.	..	...	...	..	500	...	Siame	sed.	744	744	
3	44	..	3	44	10	..	10	116.5	141.5	...	..	500	1.75	84.8	863	500	...	Siame	sed.	..	...	...	..	500	...	Siame	sed.	863	144	
3	44	10	3	53	30	9	20	105.2	99.9	22	338	500	1.75	66.2	762	500	...	Siame	sed.	500	1.127	53.1	274	500	...	Siame	sed.	1,036	9,669	11 min. 50 sec. Av. stm. pr., 98.2 lbs. Av. wr. pr., 96.6 lbs.
3	53	30	3	56	..	2	30	72.0	84.0	24	..	500	1.75	58.2	714	500	...	Siame	sed.	500	1.127	46.9	257	500	...	Siame	sed.	971	2,428	Line No. 1, 64 lbs. = 752 galls. Line No. 3, 51.5 lbs. = 270 galls. Total, 1,022 galls.
[4]3	56	..	4	04	50	8	50	97.5																						
4	04	50	4	07	..	2	10	77.0	42.5	24	..	200	2.00	27.8	655	200	..	Siame	sed.	450	...	Siame	sed.	200	...	Siame	sed.	655	1,419	
4	07	..	4	07	30	..	30	97.5	90.5	...	..	200	2.00	54.0	914	200	...	Siame	sed.	450	...	Siame	sed.	200	...	Siame	sed.	914	457	12 min. 30 sec.
4	07	30	4	14	30	7	..	114.8	112.2	21	338	200	2.00	70.2	1043	200	...	Siame	sed.	450	...	Siame	sed.	200	...	Siame	sed.	1,043	7,301	Av. steam pressure, 95.3 lbs.
4	14	30	4	15	30	1	..	81.5	100.7	...	..	200	2.00	61.7	978	200	...	Siame	sed.	450	...	Siame	sed.	200	...	Siame	sed.	978	978	Av. water pressure, 101.4 lbs.
4	15	30	4	19	30	4	..	64.2	84.0	26	..	200	2.00	53.3	907	200	...	Siame	sed.	450	...	Siame	sed.	200	...	Siame	sed.	907	3,628	63 lbs. = 989 galls.
4	19	30	4	21	..	1	30	47.0	64.5	...	..	200	2.00	41.0	796	200	...	Siame	sed	450	...	Siame	sed.	200	...	Siame	sed.	796	1,194	
..	..	..	[5]4	21	..	..	..	31.5																						
						Average,		101.3	112.8																				130,121	

Duration of test, 3 h. 8 min. 10 sec.
Length of time that pumps were running, 2 h. 23 min.
Total pounds coal used, 2,869.
Total pounds water evaporated, 8,398.

Pounds of water evaporated per pound of coal 2.93.
Pounds of water evaporated per pound of coal from and at 212°, 3.51.
Duty in foot-pounds per 100 lbs. coal, 7,758,300.
Coal used per square foot of grate per hour, 172.1 lbs.

[1] Started new fire at 1.12-10 P.M.
[2] Started pumps at 1.15-05 P.M.
[3] Shut down to repair a broken boiler feed-pipe.
[4] Shut down in order to change hose.
[5] Shut down at 4.21 P.M.

Engine No. 42. Tested October 26, 1893. Style, Silsby.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	22	. .	. .	. .	. .	. .	. .	23.0																
[2] 1	24	. .	1	29	. .	5	. .	44.5	43.2	40	. .	400	2.5	1.141	19.1	169	400	2.5	1.127	22.2	177	346	1,730	
1	29	. .	1	31	. .	2	. .	73.5	76.2	39	. .	400	2.5	1.141	40.4	246	400	2.5	1.127	42.1	243	489	978	
1	31	. .	1	32	30	1	30	78.5	95.7	. . .	. .	400	2.5	1.141	39.4	242	400	2.5	1.127	41.6	242	484	726	
[3] 1	32	30	1	34	. .	1	30	91.0	132.2	. . .	. .	. .	. .	. . .	. . .	. . .	400	2.5	1.127	58.6	287	287	430	
1	34	. .	1	45	. .	11	. .	67.3	89.8	37	672	400	2.5	1.141	39.2	242	400	2.5	1.127	41.1	241	483	5,313	
1	45	. .	1	52	. .	7	. .	80.7	98.7	36	726	400	2.5	1.141	42.9	253	400	2.5	1.127	45.1	252	505	3.535	
1	52	. .	1	54	30	2	30	80.0	107.2	. . .	744	400	2.5	1.141	47.4	266	400	2.5	1.127	49.7	265	531	1,327	
1	54	30	1	59	. .	4	30	96.0	122.2	35	792	400	2.5	1.141	51.9	279	400	2.5	1.127	55.0	278	557	2,507	
1	59	. .	2	. .	. .	1	. .	83.0	102.2	. . .	. .	400	2.5	1.141	45.3	260	400	2.5	1.127	47.2	258	518	518	
2	. .	. .	2	01	. .	1	. .	83.0	102.2	36	. .	400	2.5	1.141	46.3	263	400	2.5	1.127	48.2	261	524	524	
2	01	. .	2	03	. .	2	. .	69.0	92.2	. . .	660	400	2.5	1.141	41.0	248	400	2.5	1.127	42.3	244	492	984	
2	03	. .	2	07	. .	4	. .	91.5	114.7	. . .	. .	400	2.5	1.141	50.2	274	400	2.5	1.127	52.8	272	546	2,184	
2	07	. .	2	11	. .	4	. .	77.5	105.2	36	738	400	2.5	1.141	46.9	265	400	2.4	1.127	48.7	261	526	2,104	
2	11	. .	2	17	. .	6	. .	92.0	114.5	. . .	804	400	2.5	1.141	50.7	275	400	2.5	1.127	52.7	272	547	3,282	
2	17	. .	2	21	. .	4	. .	63.0	96.2	36	. .	400	2.5	1.141	44.8	259	400	2.5	1.127	45.9	254	513	2,052	

50 min. 30 sec.
Average steam pressure, 78.9 lbs.
Average water pressnre, 101.6 lbs.
Line No. 1, 46.5 lbs. = 257.5 galls.
Line No. 2, 46 5 lbs. = 257.5 galls.
Total, 515 galls.

[4] 2	21	. .	2	21	30	. .	30	69.5	132.2	. . .	. .	400	2.5	1.141	57.8	293	. .	. .	. . .	. . .	. .	3	147	
2	21	30	2	30	. .	8	30	84.0	109.4	35	790	400	2.5	1.141	48.9	270	400	2.5	1.263	39.0	299	569	4,836	
2	30	. .	2	38	30	8	30	75.6	103.0	35.5	. .	400	2.5	1.141	46.7	265	400	2.5	1.263	36.8	290	555	4,717	
2	38	30	2	42	. .	3	30	63.3	94.2	36	. .	400	2.5	1.141	42.9	253	400	2.5	1.263	33.2	276	529	1,851	37 min. 50 sec.
2	42	. .	2	46	. .	4	. .	74.0	101.8	. . .	. .	400	2.5	1.141	44.8	259	400	2.5	1.263	35.7	286	545	2,180	Average steam pressure, 74.5 lbs.
2	46	. .	2	49	30	3	30	66.0	95.5	36	. .	400	2.5	1.141	42.6	252	400	2.5	1 263	33.8	278	530	1,855	Average water pressure, 102.2 lbs. Line No. 1, 48.5 lbs. = 262 galls.
2	49	30	2	53	30	4	. .	81.2	106.9	36	. .	400	2.5	1.141	47.5	267	400	2.5	1.263	37.8	294	561	2,244	Line No. 2, 38 lbs. = 288 galls. Total, 550 galls.
2	53	30	2	57	. .	3	30	61.3	92.2	. . .	708	400	2.5	1.141	41.6	250	400	2.5	1.263	32.4	273	523	1,831	
2	57	. .	2	59	20	2	20	75.3	103.5	35	. .	400	2.5	1.141	45.9	262	400	2.5	1.263	36.6	290	552	1,288	
[5] 2	59	20	3	02	20	3	. .	62.3	136.8	. . .	. .	400	2.5	1.141	63.4	307	. .	. .	. . .	. . .	. .	307	921	
3	02	20	3	06	40	4	20	66.0	88.7	. . .	. .	400	2.5	1.141	39.6	243	500	3	1.263	35.2	284	527	2,284	
[6] 3	06	40	3	12	. .	5	20	94.0	164.2	38	. .	. .	. .	. . .	. . .	. . .	500	3	1.263	70.2	401	401	2,139	9 min. 20 sec.
3	12	. .	3	16	. .	4	. .	76.2	150.0	40	570	. .	. .	. . .	. . .	. . .	500	3	1.263	64.9	386	386	1,544	Average steam pressure, 86.4 lbs. Average water pressure, 158.1 lbs. Line No. 2, 71 lbs. = 395 galls.
[7] 3	16	. .	3	18	20	2	20																	
3	18	20	3	20	30	2	10	68.0	90.0	. . .	. .	500	2.5	1.141	27.3	201	500	3	1.263	51.7	345	546	1,183	
[7] 3	20	30	3	21	. .	. .	30																	
3	21	. .	3	30	. .	9	. .	72.1	97.8	38	714	500	2.5	1.141	36.3	233	500	3	1.127	50.7	267	500	4,500	12 min.
3	30	. .	3	32	. .	2	. .	60.0	87.2	. . .	. .	500	2.5	1.141	37.5	236	500	3	1.127	52.2	271	507	1,014	Average steam pressure, 71.2 lbs. Average water pressure, 96.8 lbs.
3	32	. .	3	33	. .	1	. .	85.0	107.2	. . .	. .	500	2.5	1.141	37.7	237	500	3	1.127	52.6	273	510	510	Line No. 1, 38.5 lbs. = 234 galls. Line No. 2, 50.7 lbs. =268 galls. Total, 502 galls.
3	33	. .	3	34	. .	1	.	100.0	177.2	. . .	.	500	2.5	1.141	65.6	313	. .	. .	. . .	. . .	. .	313	313	
[6] 3	34	. .	3	38	. .	4	. .	93.5	149.2	39	600	. .	. .	. . .	. . .	. . .	500	3	1.509	40.4	450	450	1,800	14 min. 20 sec.
3	38	. .	3	42	. .	4	. .	75.3	133.2	. . .	. .	. .	. .	. . .	. . .	. . .	500	3	1.509	37.6	434	434	1,736	Average steam pressure, 86.6 lbs. Average water pressure, 143.4 lbs.
3	42	. .	3	48	20	6	20	89.3	146.2	. . .	648	. .	. .	. . .	. . .	. . .	500	3	1.509	38.6	440	440	2,787	Line No. 2, 40 lbs. = 441 galls.

[1] Started new fire at 1.22 P.M. [2] Started pumps at 1.24 P.M. [3] The valve on Line No. 1 shut and was off about 1½ minutes.
[4] Line No. 2 shut off in order to change nozzle. [5] Line No. 2 shut off in order to change hose. [6] Line No. 1 shut off. [7] Shut down.

Engine No. 42. Tested October 26, 1893. Style, Silsby. — *Concluded.*

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
3	48	20	3	58	20	10	. .	83.8	151.1	. . .	620	500	2.5	1.263	46.7	327	. .	. .	. . .	. . .	. .	327	3,270	
3	58	20	4	. .	. .	1	40	84.0	149.2	. . .	. .	. .	. .	. . .	. . .	. . .	500	3	1.259	64.5	381	381	635	7 min. 40 sec. Average steam pressure, 86 lbs. Average water pressure, 151.6 lbs. Line No. 2, 68.2 lbs. = 387 galls.
4	. .	. .	4	06	. .	6	. .	86.5	152.2	. . .	. .	. .	. .	. . .	. . .	. . .	500	3	1.259	66.7	388	388	2,328	
4	06	. .	4	13	. .	7	. .	68.7	93.7	35.5	. .	500	2.5	1.141	34.9	229	500	3	1.259	41.0	304	533	3,731	11 min. Average steam pressure, 66.1 lbs. Average water pressure, 90.4 lbs. Line No. 1, 36.7 lbs. = 228 galls. Line No. 2, 41.2 lbs. = 301 galls. Total, 529 galls.
4	13	. .	4	17	. .	4	. .	61.7	84.5	. . .	756	500	2.5	1.141	34.1	227	500	3	1.259	38.2	294	521	2,084	
4	17	. .	4	18	. .	1	. .	52.0	77.2	. . .	. .	500	2.5	1.141	31.8	218	500	3	1.259	35.5	283	501	501	
. .	. .	. .	[1] 4	18	30	. .	. .	23.0																
						Average,		76.5	111.5														82,423	

Duration of test, 2 h. 56 min. 30 sec.
Length of time that pumps were running, 2 h. 51 min. 10 sec.
Total pounds coal used, 1,601.
Total pounds water evaporated, 6,043.

Pounds of water evaporated per pound coal, 3.77.
Pounds of water evaporated per pound coal from and at 212°, 4.49.
Duty in foot-pounds per 100 lbs. coal, 7,187,400.
Coal used per square foot of grate per hour, 142.5 lbs.

[1] Shut down at 4.18-30 P.M.

Engine No. 23. Tested October 30, 1893. Style, Silsby.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	11	. .	. . . .		. .	. .	. .	22																
[2] 1	14	. .	1	20	. .	6	. .	34.2	40.2	. . .	. .	500	2.5	1.141	14.9	149	500	2.5	1.127	13.8	140	289	1,734	
1	20	. .	1	25	. .	5	. .	63 2	80.6	35.5	504	500	2.5	1.141	31.7	217	500	2.5	1.127	32.1	212	429	2,145	27 min. 30 sec.
1	25	. .	1	28	30	3	30	78.7	104.9	36	576	500	2.5	1.141	40.0	244	500	2.5	1.127	41.2	242	486	1,701	Average steam pressure, 72.8 lbs.
1	28	30	1	41	. .	12	30	78.1	115.5	36	600	500	2.5	1.141	45.2	260	500	2.5	1.127	45.4	252	512	6,400	Average water pressure, 104 lbs. Line No. 1, 41.5 lbs. = 242 galls.
1	41	. .	1	47	30	6	30	66.9	99.6	36	570	500	2 5	1.141	38.2	239	500	2.5	1.127	38.7	233	472	3,068	Line No. 2, 41.5 lbs. = 242 galls. Total, 484 galls.
[3] 1	47	30	1	49	. .	1	30	94.0	160.2	41	. .	.	. .	. . .	. . .	. . .	500	2.5	1.127	64.9	304	304	456	
1	49	. .	1	51	. .	2	. .	89.5	112.7	36	576	500	2.5	1.259	33.3	273	500	2.5	1.127	42.2	244	517	1,034	
1	51	. .	2	. .	. .	9	. .	67.0	97.5	36	576	500	2.5	1.259	30.5	261	500	2.5	1.127	37.7	230	491	4,419	37 min.
2	. .	. .	2	04	. .	4	. .	67.0	99.9	37	588	500	2.5	1.259	31.6	266	500	2.5	1.127	38.7	233	499	1,996	Average steam pressure, 55.2 lbs. Average water pressure, 86.4 lbs.
2	04	. .	2	06	. .	2	. .	55.0	87.7	37.5	. .	500	2.5	1.259	28.3	252	500	2.5	1.127	33.9	218	470	940	Line No. 1, 27.5 lbs. = 245 galls. Line No. 2, 32.7 lbs. = 215 galls. Total, 460 galls.
2	06	. .	2	21	. .	15	. .	40.8	71.8	38	485	500	2.5	1.259	22.6	225	500	2.5	1.127	27.7	197	422	6,330	
2	21	. .	2	26	. .	5	. .	54.0	88.4	36.5	558	500	2.5	1.259	26.6	243	500	2.5	1.127	33.0	215	458	2,290	

[1] Started new fire at 1.11 P.M. [2] Started pumps at 1.14 P.M. [3] Line No. 1 shut off in order to change nozzle.

Engine No. 23. Tested October 30, 1893. Style, Silsby. — *Concluded.*

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1. Length of Hose.	Line No. 1. Diameter of Hose.	Line No. 1. Diameter of Nozzle.	Line No. 1. Pressure at Nozzle.	Line No. 1. Discharge per Minute.	Line No. 2. Length of Hose.	Line No. 2. Diameter of Hose.	Line No. 2. Diameter of Nozzle.	Line No. 2. Pressure at Nozzle.	Line No. 2. Discharge per Minute.	Total Discharge per Minute.	Total Discharge.	
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 2	26	. .	2	28	30	2	30	38.8	86.8	40.5	. .	500	2.5	1.259	27.4	247	. .	. .	. . .	. . .	. .	247	617	
2	28	30	2	30	. .	1	30	52.5	123.2	40.5	348	500	2.5	1.259	37.8	291	. .	. .	. . .	. . .	. .	291	437	14 min. 30 sec. Average steam pressure, 52.9 lbs. Average water pressure, 124.1 lbs. 39.7 lbs. = 295 galls.
2	30	. .	2	33	. .	3	. .	51.7	123.2	40.5	. .	500	2.5	1.259	39.5	297	. .	. .	. . .	. . .	. .	297	891	
2	33	. .	2	40	30	7	30	58.2	137.1	40.5	378	500	2.5	1.259	43.0	310	. .	. .	. . .	. . .	. .	310	2,325	
[2] 2	40	30	2	41	20	. .	50																	
2	41	20	2	48	30	7	10	59.0	144.0	40	384	500	2.5	1.259	46.3	322	. .	. .	. . .	. . .	. .	322	2,308	12 min. 25 sec. Average steam pressure, 65.4 lbs. Average water pressure, 157.4 lbs. 51.2 lbs. = 335 galls.
2	48	30	2	52	. .	3	30	69.8	166.9	41	438	500	2.5	1.259	52.6	343	. .	. .	. . .	. . .	. .	343	1,201	
2	52	. .	2	53	45	1	45	82.5	192.7	. . .	. .	500	2.5	1.259	61.0	371	. .	. .	. . .	. . .	. .	371	650	
2	53	45	2	56	. .	2	15	60.0	112.2	36	600	500	2.5	1.259	33.9	275	500	2.5	1.127	41.7	242	517	1,163	10 min. Average steam pressure, 44.6 lbs. Average water pressure, 82.3 lbs. Line No. 1, 28.7 lbs. = 251 galls. Line No. 2, 34 lbs. = 219 galls.
2	56	. .	3	. .	. .	4	. .	47.5	96.4	38	. .	500	2.5	1.259	29.8	258	500	2.5	1.127	35.9	224	482	1,928	
[3] 3	. .	. .	3	03	45	3	45	32.3	49.2	40	. .	500	2.5	1.259	23.8	230	500	2.5	1.127	28.2	200	430	1,613	
						Average,		59.0	102.1														45,646	

Duration of test, 1 h. 52 min. 45 sec.
Length of time that pumps were running, 1 h. 48 min. 55 sec.
Total pounds coal used, 835.
Total pounds water evaporated, 2,962.

Pounds of water evaporated per pound of coal, 3.55.
Pounds of water evaporated per pound of coal, from and at 212°, 4.22.
Duty in foot-pounds per 100 lbs. coal, 6,482,100.
Coal used per square foot of grate per hour, 91.1 lbs.

[1] Line No. 2 shut off; unable to maintain steam pressure.
[2] Shut down in order to get steam up.
[3] At 3.03-45 P.M., shut down owing to the inability of the engine to keep steam up.

Engine No. 23. Second Test, November 1, 1893. Style, Silsby.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1.					Line No. 2.					Total Discharge per Minute.	Total Discharge.	
												Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.	Length of Hose.	Diameter of Hose.	Diameter of Nozzle.	Pressure at Nozzle.	Discharge per Minute.			
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Galls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	14	30	. .	. .	. .	. .	. .	33.5																
[2] 1	18	. .	1	20	. .	2	. .	55.5	33.2	. . .	. .	500	2.5	1.263	. . .	145	500	2.5	1.131	. . .	140	285	570	
1	20	. .	1	23	30	3	30	62.0	58.7	. . .	462	500	2.5	1.263	18.6	207	500	2.5	1.131	25.5	192	399	1,397	
1	23	30	1	26	30	3	. .	73.7	83.8	. . .	. .	500	2.5	1.263	26.9	249	500	2.5	1.131	37.3	236	485	1,455	
1	26	30	1	30	.	3	30	85.0	122.4	35	636	500	2.5	1.263	36.6	286	500	2 5	1.131	50.2	270	556	1,946	
1	30	. .	1	31	. .	1	. .	83.0	127.2	. . .	684	500	2.5	1.263	37.3	292	500	2.5	1.131	50.5	270	562	562	
1	31	. .	1	39	30	8	30	99.1	145.9	33	720	500	2.5	1.263	43.5	315	500	2.5	1.131	59.6	293	608	5,168	43 min. 30 sec.
1	39	30	1	43	30	4	. .	83.5	135.7	36	. .	500	2.5	1.263	40.8	305	500	2.5	1.131	56.3	284	589	2,356	Average steam pressure, 91.4 lbs.
1	43	30	1	48	30	5	.	101.1	149.2	33	726	500	2.5	1.263	45.1	321	500	2.5	1.131	61.2	297	618	3,090	Average water pressure, 136.6 lbs.
1	48	30	1	54	30	6	. .	85.2	135.8	34	. .	500	2.5	1.263	41.1	306	500	2.5	1.131	55.4	282	588	3,528	Line No. 1, 42.5 lbs. = 305 galls. Line No. 2, 57.5 lbs. = 285 galls. Total, 590 galls.
1	54	30	2	. .	. .	5	30	99.5	146.8	34	726	500	2.5	1.263	44.5	319	500	2.5	1.131	60.4	294	613	3,372	
2	. .	. .	2	04	30	4	30	97	146.7	36	720	500	2.5	1.263	43.6	315	500	2.5	1.131	59.3	292	607	2,731	
[3] 2	04	30	2	07	. .	2	30	79	129.7	. . .	. .	500	2.5	1.263	39.9	302	500	2.5	1.131	54.1	280	582	1,455	
						Average,		87.8	126.8														27,630	

Duration of test, 52 min. 30 sec.
Length of time that pumps were running, 49 min.
Total pounds coal used, 644.
Total pounds water evaporated, 2,209.

Pounds of water evaporated per pound coal, 3.43.
Pounds of water evaporated per pound coal, from and at 212°, 4.10.
Duty in foot-pounds per 100 lbs. coal, 7,993,400.
Coal used per square foot of grate per hour, 151.4 lbs.

[1] Started new fire at 1.14-30 P.M.
[2] Started pumps at 1.18 P.M.
[3] At 2.07 P.M. engine stopped suddenly, and after an examination two of the small teeth of steam cam were found to have broken.

Engine No. 33. Tested October 31, 1893. Style, Silsby.

Experiment Began.			Experiment Ended.			Elapsed Time.		Steam Pressure in Boiler.	Water Pressure at Engine.	Water Pressure at Hydrant.	Revolutions per Minute of Engine.	Line No. 1. Length of Hose.	Line No. 1. Diameter of Hose.	Line No. 1. Diameter of Nozzle.	Line No. 1. Pressure at Nozzle.	Line No. 1. Discharge per Minute.	Line No. 2. Length of Hose.	Line No. 2. Diameter of Hose.	Line No. 2. Diameter of Nozzle.	Line No. 2. Pressure at Nozzle.	Line No. 2. Discharge per Minute.	Total Discharge per Minute.	Total Discharge.	
H.	Min	Sec.	H.	Min	Sec.	Min	Sec.	Lbs.	Lbs.	Lbs.		Ft.	In.	In.	Lbs.	Gls.	Ft.	In.	In.	Lbs.	Gls	Gls	Galls.	
[1] 1	07	30	. .	. .	. .	. .	. .	21.0																
[2] 1	09	30	1	11	15	1	45	29.0	27.2	. . .	. .	500	2.5	1.127	. . .	120	500	2.5	1.131	. . .	120	240	420	
[3] 1	11	15	1	14	. .	2	45	27.5	49.7	. . .	. .	500	2.5	1.127	. . .	160	. .	. .	. . .	. . .	. .	160	440	
1	14	. .	1	16	. .	2	. .	38.2	61.2	. . .	. .	500	2.5	1.127	. . .	175	. .	. .	. . .	. . .	. .	175	350	
1	16	. .	1	18	.	2	. .	51.5	77.2	. . .	. .	500	2.5	1.127	. . .	200	. .	. .	. . .	. . .	. .	200	400	
1	18	. .	1	18	20	. .	20	72.0	102.2	. . .	. .	500	2.5	1.127	34.3	220	. .	. .	. . .	. . .	. .	220	74	4 min. 40 sec.
1	18	20	1	19	30	1	10	89.0	125.2	. . .	690	500	2.5	1.127	48.5	262	500	2.5	1.131	49.7	267	529	617	Average steam pressure, 88.4 lbs. Average water pressure, 139.6 lbs.
1	19	30	1	23	. .	3	30	88.0	144.2	34.5	774	500	2.5	1.127	63.0	298	500	2.5	1.131	62.3	300	598	2,093	Line No. 1, 60 lbs = 291 galls. Line No. 2, 60 lbs. = 291 galls. Total, 582 galls.
[4] 1	23	. .	1	24	. .	1	. .	86.5	144.2	. . .	. .	500	2.5	1.127	99.8	375	. .	. .	. . .	. . .	. .	375	375	
1	24	. .	1	30	. .	6	. .	86.3	144.7	33	762	500	2.5	1.127	62.6	297	500	2.5	1.259	46.9	323	620	3,720	21 min.
1	30	. .	1	32	. .	2	.	83.0	145.2	. . .	. .	500	2.5	1.127	62.9	298	500	2.5	1.259	47.1	323	621	1,242	Average steam pressure, 79.7 lbs. Average water pressure, 141.1 lbs.
1	32	. .	1	35	. .	3	. .	70.0	130.2	. . .	732	500	2.5	1.127	58.0	286	500	2.5	1.259	42.6	308	594	1,782	Line No. 1, 61.2 lbs. = 294 galls. Line No. 2, 46.2 lbs. = 318 galls. Total, 612 galls.
1	35	. .	1	45	. .	10	. .	78.0	141.4	35	774	500	2.5	1.127	61.3	293	500	2.5	1.259	45.6	319	612	6,120	
[5] 1	45	. .	1	46	. .	1	. .	88.0	200.2	39	. .	. .	. .	. . .	. . .	. . .	500	2.5	1.259	66.0	386	386	386	

1	46	. .	1	51	. .	5	. .	72.4	130.2	33	750	500	2.5	1.263	42.3	311	500	2.5	1.259	42.3	307	618	3,090	
1	51	. .	2	. .	. .	9	. .	85.8	142.1	33	822	500	2.5	1.263	46.1	324	500	2.5	1.259	45.9	320	644	5,796	
2	. .	. .	2	02	. .	2	. .	88.0	143.7	. . .	804	500	2.5	1.263	47.6	330	500	2.5	1.259	47.0	324	654	1,308	
2	02	. .	2	07	. .	5	. .	74.2	128.4	. . .	780	500	2.5	1.263	41.7	308	500	2.5	1.259	41.7	305	613	3,065	41 min. 30 sec.
2	07	. .	2	10	.	3	. .	88.7	143.9	32	828	500	2.5	1.263	47.0	328	500	2.5	1.259	47.2	325	653	1,959	Average steam pressure, 70.7 lbs. Average water pressure, 127.6 lbs.
2	10	. .	2	12	. .	2	. .	76.5	132.2	. . .	. .	500	2.5	1.263	44.5	319	500	2.5	1.259	43.6	312	631	1,262	Line No. 1, 42.5 lbs. = 305.5 galls. Line No. 2, 42.5 lbs. = 305.5 galls.
2	12	. .	2	15	. .	3	. .	67.0	124.9	36	. .	500	2.5	1.263	40.8	305	500	2.5	1.259	40.4	301	606	1,818	Total, 611 galls.
2	15	. .	2	21	. .	6	. .	53.7	113.2	36	684	500	2.5	1.263	35.9	287	500	2.5	1.259	36.2	284	571	3,426	
2	21	. .	2	27	30	6	30	48.2	105.4	39	685	500	2.5	1.263	34.4	281	500	2.5	1.259	34.4	277	558	3,627	
[6] 2	27	30	2	41	45	14	15																	
2	41	45	2	45	. .	3	15	84.0	62.2															
2	45	. .	2	48	. .	3	. .	74.7	92.5	. . .	624	500	2.5	1.263	29.8	261	500	2.5	1.259	30.1	260	521	1,563	
2	48	. .	2	49	. .	1	. .	91.0	105.2	. . .	. .	500	2.5	1.263	32.9	274	500	2.5	1.259	33.7	275	549	549	17 min. 20 sec.
2	49	. .	2	55	. .	6	. .	89.7	130.7	34	780	500	2.5	1.263	42.2	310	500	2.5	1.259	42.3	308	618	3,708	Average steam pressure, 78.9 lbs. Average water pressure, 120.2 lbs.
2	55	.	3	. .	. .	5	. .	71.2	125.8	. . .	774	500	2.5	1.263	41.7	309	500	2.5	1.259	41.8	306	615	3,075	Line No. 1, 40.2 lbs. = 297 galls. Line No. 2, 40.2 lbs. = 297 galls.
3	. .	. .	3	02	20	2	20	68.0	123.2	. . .	. .	500	2.5	1.263	39.8	302	500	2.5	1.259	39.7	299	601	1,402	Total, 594 galls.
[7] 3	02	20	3	08	. .	5	40	86.7	207.8	40	. .	500	2.5	1.263	70.7	403	. .	. .	. . .	. . .	. .	403	2,284	
3	08	. .	3	10	30	2	30	92.7	132.9	32	. .	500	2.5	1.263	44.7	320	500	3	1.259	60.6	370	690	1,725	19 min. 30 sec.
3	10	30	3	27	. .	16	30	81.6	123.6	34	832	500	2.5	1.263	40.9	306	500	3	1.259	55.5	353	659	10,873	Average steam pressure, 82.6 lbs. Average water pressure, 124.5 lbs.
[8] 3	27	. .	3	27	30	. .	30	65.0	113.2	. . .	. .	500	2.5	1.263	38.9	299	500	3	1.259	51.7	340	639	320	Line No. 1, 43 lbs. = 307 galls. Line No. 2, 57.5 lbs. = 355 galls. Total, 662 galls.
						Average,		74.7	128.1														68,869	

Duration of test, 2 h. 20 min.
Length of time that pumps were running, 2 h. 30 sec.
Total pounds coal used, 1,756.
Total pounds water evaporated, 5,555.

[1] Started new fire at 1.07-30 P.M.
[2] Started pumps at 1.09-30 P.M.
[3] Shut down Line No. 2 in order to hasten steam.
[4] Line No. 2 shut off in order to change nozzle.
[5] Line No. 1 shut off in order to change nozzle.

Pounds of water evaporated per pound coal, 3.16.
Pounds of water evaporated per pound coal, from and at 212°, 3.76.
Duty in foot-pounds per 100 lbs. coal, 7,265,000.
Coal used per square foot of grate per hour, 148.4 lbs.

[6] Shut down in order to repair a coupling on pump relief pipe.
[7] Line No. 2 shut off in order to change hose.
[8] At 3.27-30 P.M. engine stopped suddenly, and after an examination two of the small teeth of steam cam were found to have broken.

FIRES AND ALARMS

FROM

FEBRUARY 1st, 1893, TO JANUARY 31st, 1894.

FEBRUARY.

Wednesday, 1st, 2–45 A.M. Box 18.

No. 11 Brattle st. Owned by Goodwin & Rimbach; loss, $25; insurance, $12,500; occupied by Goodwin & Rimbach, as hotel; originated in basement; cause, careless use of pipe in clothing.

Wednesday, 1st, 8–01 A.M. Box 67.

No. 9 Burroughs pl. Owned by Homœopathic Medical Dispensary; loss, $260; insurance, $5,000; occupied by Julia A. Raney, as dwelling; loss, $160; insurance, $600; originated in basement; cause unknown.

Wednesday, 1st, 10–15 A.M. Box 428.

No. 87 Decatur st. Owned by M. J. Doran; loss, $10; insurance, $2,000; occupied by M. J. Doran, as provisions; insurance, $1,000; originated in basement; cause, gas explosion.

Wednesday, 1st, 5–17 P.M. Still.

No. 47 Wareham st. Automatic alarm, needless.

Wednesday, 1st, 5–50 P.M. Box 39.

No. 175 Tremont st. Owned by James L. Little estate; loss, $1,582; insurance, $100,000; occupied by A. V. Doyle, as millinery; loss, $1,824; insurance, $3,000; occupied by Miss Chenet, as music rooms; loss, $50; insurance, $300; occupied by H. H. Litchfield, as real-estate office; loss, $100; insurance, $2,000; occupied by M. L. McKean *et al.*, as milliner, etc.; loss, $170; insurance, $34,700; originated on 5th floor; cause, careless use of matches.

Wednesday, 1st, 6–10 P.M. Box 636.

Nos. 159 and 161 Havre st. No. 159 owned by Edward Kenney; loss, $40; insurance, $1,000; No. 161 owned by Sarah McGivern; loss, $34; insurance, $1,600; No. 159 occupied by M. E. Gagen, as dwelling; No. 161 occupied by Sarah McGivern, as dwelling; insurance, $400; originated in basement; cause unknown.

Wednesday, 1st, 8–19 P.M. Box 65.

No. 55 Broadway extension. Owned by S. A. Way estate; occupied by E. Mann, as bottle dealer; originated on 1st floor; cause, overheated stove-pipe.

Wednesday, 1st, 11–42 P.M. Box 29.

False alarm.

Thursday, 2d, 11-27 A.M. Still.

No. 66 ALLEN ST. Owned by D. G. Gilbert; insurance, $1,000; occupied by K. Campbell, as dwelling; originated in basement; cause, hot ashes igniting woodwork.

Thursday, 2d, 2-40 P.M. Box 53.

BOYLSTON AND WASHINGTON STS. Cause, electric motor igniting car of West End Railroad.

Thursday, 2d, 9-09 P.M. Box 7.

No. 35 ALLEN ST. Owned by H. L. Eisner; occupied by Sarah Ingles, as dwelling; originated in basement; cause, hot ashes in wooden receptacle.

Friday, 3d, 0-10 P.M. Still.

No. 44 HOWARD ST. Owned by W. E. Bicknell; loss, $20; insurance, $6,000; occupied by Somerset Clothing Co , as clothing store; loss, $60; insurance, $4,000; originated on 2d floor; cause, gas jet igniting woodwork.

Friday, 3d, 3-30 P.M. Box 13.

No. 3 LOTHROP PL. Owned by Wm. J. Partridge; loss, $230; insurance, $12,000; occupied by Michael Gagan, as dwelling; loss, $114; insurance, $1,000; originated on 2d floor; cause unknown.

Friday, 3d, 5-13 P.M. Still.

No. 7 CRESCENT PL. Owned by C. Barchaglip; insurance, $4,500; occupied by S. M. Freeman *et al.*, as dwelling; originated on 3d floor; cause, careless use of candle.

Friday, 3d, 8-35 P.M. Still.

IRVINGTON ST. Cause, soot in chimney burning.

Friday, 3d, 9-09 P.M. Box 121.

No. 132 A ST. Owned by James Quinn; loss, $192; insurance, $2,500; occupied by James Quinn, as dwelling; loss, $15; originated on 1st floor; cause, careless use of matches.

Remarks. — Hoseman J. F. Hennessey, of Engine No. 15, was slightly injured in the foot with pick of an axe.

Saturday, 4th, 6-07 P.M. Box 35.

No. 252 WASHINGTON ST. Owned by J. A. Codman; loss, $486; insurance, $15,000; occupied by J. A. Cummings Printing Co., as printers; loss, $5,858; insurance, $15,000; originated on 3d floor; cause unknown.

Saturday, 4th, 3-20 P.M. Box 65.

No. 15 MOTTE ST. Owned by S. A. Way estate; insurance, $1,500; occupied by L. Daniels, as tailor shop; insurance, $500; originated on 2d floor; cause unknown.

Sunday, 5th, 8-15 A.M. Box 799.

WILLIAMS COURT. Owned by Boston Herald Co.; occupied by Boston Herald Co., as pressroom; originated in basement; cause, ignition of oily waste from lamp.

Sunday, 5th, 1–33 P.M. Box 68.

No. 699 HARRISON AVE. Owned by A. P. Leary; insurance, $800; occupied by J. Lucas, as provisions; originated on 1st floor; cause, overheated stove.

Sunday, 5th, 3–35 P.M. Still.

No. 24 WEST FIFTH ST. Owned by J. S. Whitney; loss, $5; occupied by Patrick Dillon, as dwelling; originated on 1st floor; cause, thawing water-pipes.

Sunday, 5th, 8–31 P.M. Box 127.

No. 141 WEST SEVENTH ST. Owned by H. Dickmyer; loss, $5; occupied by H. Dickmyer, as dwelling; originated on 1st floor; cause, thawing water-pipes.

Monday, 6th, 1–31 A.M. Still.

No. 131 WEST CHESTER PARK. Cause, soot in chimney burning.

Monday, 6th, 3–51 P.M. Box 966.

No. 1028 WASHINGTON ST. Owned by John G. Karle; loss, $675; insurance, $2,000; occupied by E. A. Coville, as dwelling; loss, $408; insurance, $1,500; originated on 2d floor; cause unknown.

Monday, 6th, 5–40 P.M. Still.

No. 3 ALLSTON ST. Owned by Sargent heirs; insurance, $7,000; occupied by A. J. Williams, as dwelling; insurance, $1,500; originated on 1st floor; cause, ignition of oil from furnace.

Monday, 6th, 6–07 P.M. Box 221.

No. 4 HAMPSHIRE COURT. Owned by Thomas H. Hall; loss, $233; insurance, $2,000; occupied by Mary McGlinn, as dwelling; loss, $10; orginated on 1st floor; cause, thawing water-pipes.

Monday, 6th, 8–33 P.M. Box 339.

GENEVA AVE. Cause, sparks from chimney mistaken for fire.

Tuesday, 7th, 1–30 P.M. Still.

MERCER ST. Owned by Thomas Pray; loss, $20; unoccupied; boat-house; originated on 1st floor; cause, set by boys.

Tuesday, 7th, 7–37, 8–11, 8–13 P.M. Box 51.

NOS. 275 TO 285 CONGRESS ST. Owned by John Dickey; loss, $9,045; insurance, $83,000; occupied by Stearns Shoe Company, as boots and shoes; loss, $10,219; insurance, $83,500; occupied by A. W. Clapp & Co., as boots and shoes; loss, $4,300; insurance, $66,500; occupied by J. H. Bussell & Co., as boots and shoes; loss, $425; insurance, $12,000; occupied by C. E. Riley & Co., as machinery; loss, $6,500; insurance, $38,000; occupied by C. F. Daniels & Co., as slippers; loss, $17,694; insurance, $123,000; occupied by John A. Lowell & Co., as printers; loss, $887; insurance, $7,500; occupied by Haynes, Sparrell & Co., as boots and shoes; loss, $7,062; insurance, $42,000; occupied by Simons, Hatch & Whitten, as storage; loss, $65,818; insurance, $103,000; occupied by Hutchinson & Littlefield, as boots and shoes; loss, $4,089; insurance, $38,000; occupied by J. T. Meader & Co., as hides, etc.; loss, $60; insurance, $12,000. Originated on 6th floor; cause unknown.

Tuesday, 7th, 7–10 P.M. Still.

No. 45 WEST SECOND ST. Owned by J. Costello; occupied by J. Moran, as dwelling; originated on 1st floor; cause, upsetting kerosene lamp.

Tuesday, 7th, 11–51 P.M. Box 61.

No. 134 ELIOT ST. Owned by Hollingsworth heirs; loss, $67; insurance, $3,500; occupied by E. W. Seldon *et al.*, as carpenter; loss, $83; insurance, $3,000; originated on 2d floor; cause unknown.

Wednesday, 8th, 9-54 A.M. Box 134.

No. 41 WEST SEVENTH ST. Owned by Geo. Johnson; loss, $350; insurance, $1,800; occupied by C. J. McGee, as dwelling; loss, $10; insurance, $400; originated on 1st floor; cause, thawing water-pipes.

Remarks. — Hoseman J. F. Sullivan, of Engine No. 15, fell from the roof and broke his arm in two places, caused by dog of ladder giving way.

Wednesday, 8th, 5–55 P.M. Still.

No. 220 HANCOCK ST. Owned by D. B. Stedman, jr.; loss, $137; insurance, $4,400; occupied by W. J. Delap, as dwelling; loss, $200; originated on 2d floor; cause, supposed mice and matches.

Thursday, 9th, 0–10 A.M. Box 72.

No. 1070 WASHINGTON ST. Owned by A. Hall; loss, $16; insurance, $5,000; occupied by E. Bassett, as dwelling; loss, $4; originated on 3d floor; cause, careless smoking in bed.

Thursday, 9th, 4–07, 4–30 A.M. Box 47.

NOS. 361 AND 365 PURCHASE ST. No. 361 owned by G. W. Taylor; loss, $4,565; insurance, $10,000; No. 365 owned by Moses Williams estate; loss, $150; insurance, $18,000; No. 361 occupied by Timothy Remick, as wool storage; loss, $25,000; insurance, $55,000; occupied by J. C. Gerlack, as offices, etc.; loss, $1,876; insurance, $5,600; originated on 4th floor; cause, supposed electric wires.

Thursday, 9th, 4–57 A.M. Box 38.

INDIA WHARF. Cause, needless alarm from Rogers Auxiliary System.

Thursday, 9th, 5–12 A.M. Box 48.

N. Y. & N. E. RAILROAD WHARF. Owned by N. Y. & N. E. Railroad; loss, $400; insurance, $10,200; occupied by N. Y. & N. E. R.R., as storage of oil; loss, $219; insurance, $1,600; originated on 1st floor; cause, supposed overheated stove.

Thursday, 9th, 10–17 A.M. Box 799.

Smoke mistaken for fire.

Thursday, 9th, 10–25 A.M. Still.

No. 48 BUCKINGHAM ST. Owned by P. G. Peabody; loss, $10; insurance, $3,000; occupied by H. A. Ivis, as dwelling; originated in basement; cause, defective chimney.

Thursday, 9th, 8–12 P.M. Box 62.

No. 155 ELIOT ST. Owned by J. R. Brackett; loss, $265; insurance, $15,000; occupied by C. A. Bray, as stove store; loss, $567; insurance, $2,000; originated in basement; cause, overheated furnace.

Friday, 10th, 1–27 A.M. Box 315.

No. 3 BROOK AVE. Owned by C. F. Barton; loss, $30; insurance, $2,500; occupied by B. Rottler, as tailor shop; loss, $150; originated on 1st floor; cause, careless use of match or cigar in sawdust spittoon.

Friday, 10th, 1–27 A.M. Box 35.

Defect in repeater at fire-alarm office on box 315.

Friday, 10th, 2–20 A.M. Box 47.

No. 31 HARTFORD ST. Owned by C. R. Chase; loss, $275; insurance, $5,000; occupied by Frank Burgess, as Boston Gear Works; loss, $99; insurance, $7,000; originated on 2d floor; cause, overheated stove.

Friday, 10th, 4–15, 4–19 A.M. Box 48.

NOS. 246 AND 248 PURCHASE ST. Owned by Horace Billings; loss, $1,845; insurance, $30,000; occupied by Hechman, Bissell & Co., as hides, leather, etc.; loss, $10,857; insurance, $95,000; occupied by G. H. Goodhue, as wools, etc.; loss, $1,200; insurance, $20,000; occupied by G. J. Hopkins, as leathers; loss, $46; insurance, $10,000; originated on 1st floor; cause unknown.

Friday, 10th, 5–43 A.M. Box 47.

No. 143 HIGH ST. Sparks from chimney mistaken for fire.

Friday, 10th, 8–10 P.M. Still.

No. 85 CHANDLER ST. Owned by C. Shea; loss, $34; insurance, $7,000; occupied by C. Shea, as dwelling; loss, $60; insurance, $1,500; originated in basement; cause, explosion of kerosene lamp.

Remarks. — Catherine Shea was burned to death.

Saturday, 11th, 10–45 A.M. Box 428.

CHELSEA ST. Cause, boys setting fire to rubbish on oil-wharf.

Saturday, 11th, 0–49 P.M. Box 49.

No. 16 SUMMER ST. Owned by Dudley D. Pickman; insurance, $20,000; occupied by C. Green & Co., as clothing; insurance, $45,000; originated on 1st floor; cause, careless use of cigarette.

Sunday, 12th, 0–59 P.M. Box 39.

No. 145 TREMONT ST. Owned by E. E. Pratt; loss, $990; insurance, $20,000; occupied by E. J. States, as fancy goods; loss, $221; insurance, $7,500; occupied by Cleanfast Hosiery Company, as salesroom; loss, $223; insurance, $8,200; originated in basement; cause, electric wires.

Monday, 13th, 4–33 P.M. Box 135.

No. 169 K ST. Owned by Andrew Mahoney; loss, $800; occupied by Andrew Mahoney, as dwelling; loss, $50; originated in basement; cause, overheated furnace-pipe.

Remarks. — Ladderman D. J. Calden, of Truck No. 5, was slightly injured by falling ceiling.

Monday, 13th, 5–44 P.M. Box 224.

No. 6 BROWN ST. Owned by G. Goodnough; loss, $19; insurance, $2,500; occupied by P. Murphy, as dwelling; loss, $10; originated on 3d floor; cause, defective flue.

Monday, 13th, 6–09 P.M. Box 16.

No. 61 ELM ST. Owned by R. E. Demmon; insurance, $8,000; occupied by Wm. R. Schaefer & Son, as gun store; insurance, $30,000; originated on 4th floor; cause, careless use of matches.

Monday, 13th, 6–50 P.M. Still.

No. 67 BROMFIELD ST. Owned by Horticultural Society; occupied by Peck & Sutherland, as florists; originated in basement; cause, electric wires.

Tuesday, 14th, 11–11 A.M. Box 41.

No. 339 WASHINGTON ST. Owned by J. Donaldson; loss, $184; insurance, $20,000; occupied by Goddard Credit Company, as jewellers; loss, $939; insurance, $1,000; occupied by P. Newman, as jewellers; loss, $10; insurance, $1,100; originated on 3d floor; cause, careless use of lamp.

Tuesday, 14th, 4–56 P.M. Box 436.

No. 336 BUNKER HILL ST. Owned by William Wright; insurance, $800; occupied by Stephen McDonald, as dwelling; loss, $20; originated on 3d floor; cause, clothes hanging too near stove.

Tuesday, 14th, 10–24 P.M. Box 53.

No. 207 TREMONT ST. Owned by J. M. Little estate; insurance, $12,000; occupied by George Sawyer, as eating-house; loss, $5; originated on 1st floor; cause unknown.

Tuesday, 14th, 10–29 P.M. Box 268.

False alarm.

Wednesday, 15th, 1–10 P.M. Still.

No. 1821 WASHINGTON ST. Owned by C. A. Richards heirs; loss, $75; insurance, $20,000; occupied by A. W. Cutter, as dwelling; cause, soot in chimney burning.

Wednesday, 15th, 7–13 P.M. Box 83.

No. 108 W. CHESTER PARK. Owned by J. T. Ellis; loss, $17; insurance, $7,000; occupied by M. Blount, as dwelling; loss, $10; originated on 2d floor; cause, gas-jet igniting curtain.

Wednesday, 15th, 11–59 P.M. Box 17.

No. 60 UNION ST. Owned by James Davis; loss, $12; insurance, $15,000; occupied by R. A. & R. F. Richards, as tin plate; insurance, $39,000; originated on 3d floor; cause, ignition of phosphorus.

Thursday, 16th, 1–30 P.M. Still.

No. 283 FRANKLIN ST. Owned by H. G. Dorr; insurance, $9,000; occupied by B. M. Hanson, as toilet soaps; originated on 5th floor; cause, upsetting kerosene stove.

Thursday, 16th, 4–07 P.M. Box 624.

CUNARD WHARF. Owned by Cunard Steamship Company; loss, $25; insurance, $50,000; occupied by Cunard Steamship Company, as baggage-room; originated on 3d floor; cause, spontaneous combustion.

Thursday, 16th, 7–35 P.M. Still.

No. 75 Pleasant st. Owned by M. Cutter heirs; loss, $7; insurance, $8,500; occupied by Mrs. Albert Lee, as dwelling; loss, $30; insurance, $50; originated on 1st floor; cause unknown.

Thursday, 16th, 7–55 P.M. Box 12.

No. 83 Endicott st. Owned by Arthur Devlin heirs; insurance, $2,400; occupied by D. Neutille, as dwelling; originated on 1st floor; cause, smoke from chimney mistaken for fire.

Friday, 17th, 11–59 A.M. Still.

Cove st. Cause unknown.

Remarks. — This fire occurred in a wagon owned by G. O. Martin; damage, $3.

Friday, 17th, 0–15 P.M. Still.

No. 2 Shepard st. Owned by A. J. McMurtry; loss, $5; insurance, $2,500; occupied by George Darlow & Sons, as dwelling, etc.; insurance, $2,000; originated in basement; cause, ignition of oakum from sparks.

Friday, 17th, 4–21 P.M. Box 51.

No. 148 Purchase st. Owned by James S. Stone; insurance, $40,000; occupied by Ginn & Co., as publishers; insurance, $60,250; originated in basement; cause, ignition of kerosene in lamp.

Friday, 17th, 4–43 P.M. Box 4.

No. 4 North Hudson st. Owned by R. I. Burbank; loss, $12; insurance, $1,500; occupied by several families, as dwellings; originated in basement; cause, supposed incendiary.

Friday, 17th, 7–13 P.M. Box 58.

Furnace st. Owned by J. J. Falvy; loss, $350; insurance, $500; occupied by W. Tinsdale, as stable; loss, $100; originated on 2d floor; cause unknown.

Saturday, 18th, 3–28 A.M. Box 62.

No. 208 Pleasant st. Owned by E. L. Bartlett; loss, $50; insurance, $10,000; occupied by R. Klitzke, as bakery; insurance, $3,000; originated in basement; cause, overheated boiler.

Saturday, 18th, 5–47 A.M. Box 726.

Furnace st. Cause, rekindling of hay from stable, Box 58, on the 17th inst.

Saturday, 18th, 8 A.M. Still.

No. 84 Hawley st. Cause, break in automatic circuit.

Saturday, 18th, 11–21 A.M. Box 134.

No. 41 Baxter st. Owned by J. Russell; loss, $8; insurance, $2,000; occupied by A. Hain, as dwelling; originated on 1st floor; cause, breaking kerosene lamp.

Saturday, 18th, 4–10 P.M. Box 995.

Nos. 86 and 88 Norfolk st. Owned by G. E. Chipman; loss, $2,500; insurance, $2.500; occupied by J. J. Kenney, as plumber; loss, $1,000; occupied by Sin Hi, as laundry; occupied by R. C. Henderson, as fish store; occupied by Salvation Army, as hall; originated on 1st floor; cause, overheated stove.

Saturday, 18th, 4–27 P.M. Box 844.

No. 5 WAXFORD ST. Owned by Brighton Abattoir Company; insurance, $1,500; occupied by William Shaughnessey, as dwelling; loss, $5; originated on 1st floor; cause, overheated stove.

Saturday, 18th, 10–59 P.M. Still.

No. 26 WALES ST. Owned by W. O. Robson; loss, $54; insurance, $5,500; occupied by S. M. Hyams, as dwelling; loss, $45; insurance, $2,000; originated on 1st floor; cause, defective fireplace.

Sunday, 19th, 8–54 A.M. Box 4.

BOSTON & MAINE RAILROAD BRIDGE. Insurance, $14,000; cause, overheated stove igniting mail-car on the bridge.

Sunday, 19th, 2–10 P.M. Still.

STORY PL. Owned by S. M. Weld; insurance, $2,500; occupied by S. M. Weld, as dwelling; insurance, $1,500; originated on 1st floor; cause, ignition of rags in woodbox.

Monday, 20th, 3–30 A.M. Still.

No. 614 SHAWMUT AVE. Owned by William Colwell; loss, $3; insurance, $12,000; occupied by J. Taylor, as restaurant; loss, $5; insurance, $500; originated on 1st floor; cause, spontaneous combustion.

Monday, 20th, 7–40 P.M. Still.

No. 28 BUCKINGHAM ST. Owned by B. Ruther; loss, $5; insurance, $4,000; occupied by J. H. Bell, as dwelling; originated on 1st floor; cause, thawing water-pipes.

Tuesday, 21st, 8–36 A.M. Box 261.

No. 2943 WASHINGTON ST. Owned by George Hefler; occupied by George Hefler, as dwelling; originated in basement; cause, thawing water-pipes.

Tuesday, 21st, 8–06 P.M. Box 62.

No. 104 WARRENTON ST. Owned by W. H. Chadbourne; insurance, $12,000; occupied by M. Sullivan, as dwelling; loss, $5; originated on 5th floor; cause, upsetting kerosene lamp.

Wednesday, 22d, 0–½ A.M. Box 635.

No. 225 MARION ST. Owned by Michael J. Gaffigan; loss, $15; insurance, $800; occupied by M. Stannard, as dwelling; loss, $10; originated on 2d floor; cause, breaking kerosene lamp.

Wednesday, 22d, 4–45 A.M. Box 635.

REAR 225 MARION ST. Cause, rekindling of remains of mattress from previous fire.

Wednesday, 22d, 10–33 A.M. Box 937.

No. 6 LINCOLN ST. Owned by James Ryan; loss, $25; insurance, $2,000; occupied by George McCarthy, as dwelling; originated in basement; cause, children and matches.

Wednesday, 22d, 1–43 P.M. Box 525.

MORELAND PL. Cause, soot in chimney burning.

Wednesday, 22d, 7–09 P.M. Box 112.

False alarm.

Thursday, 23d, 10–45 A.M. Still.

BOYLSTON ST. Cause, electric motor igniting car of West End R.R.

Thursday, 23d, 1–29, 1–47 P.M. Box 9.

FISKE'S WHARF. Owned by Fiske's Wharf Warehouse and Storage Company; loss, $2,907; insurance, $5,000; occupied by Pearson Cordage Company, as Sisal hemp; loss, $9,559; insurance, $43,000; occupied by Haverhill Paper Company, as paper stock; loss, $1,977; insurance, $3,100; occupied by Glen Manufacturing Company, as paper stock; loss, $1,778; insurance, $1,500; occupied by W. L. Montgomery & Co., as sumac; loss, $100; occupied by B. F. Smith, as sumac; insurance, $5,000; occupied by J. T. Glines & Co., as coffees; insurance, $1,500; occupied by B. H. Warner, as salt; insurance, $4,500; occupied by R. Briggs & Co., as crockery; insurance, $6,000; originated on 2d floor; cause unknown.

Thursday, 23d, 6–01 P.M. Box 6.

No. 1 WILLARD ST. Owned by M. Pinchansky; insurance, $4,000; occupied by M. Rosenberg, as dwelling; originated on 3d floor; cause, careless use of lamp.

Thursday, 23d, 6–03 P.M. Box 5.

Cause, given for above fire at 18 Willard st.; needless.

Thursday, 23d, 9–32 P.M. Box 8.

No. 129 PORTLAND ST. Owned by Wm. Sohier heirs; insurance, $25,000; occupied by L. Collins, as iron worker; insurance, $4,500; originated on 3d floor; cause, sparks from forge.

Friday, 24th, 10–40 A.M. Still.

No. 19 BRIMMER ST. Owned by M. A. Wales; occupied by M. A. Wales, as dwelling; cause, soot in chimney burning.

Saturday, 25th, 9–57 A.M. Still.

COR. OF BENNET AND ASH STS. Owned by Boston Dispensary Company; loss, $15; insurance, $25,000; occupied by Boston Dispensary Company, as dispensary; originated on 1st floor; cause, overheated pipe from furnace.

Saturday, 25th, 3–25 P.M. Still.

No. 7 MCLELLAN ST. Owned by A. S. Connelly; loss, $50; insurance, $1,500; occupied by John Mahoney, as dwelling; loss, $25; originated on 2d floor; cause, children and matches.

Saturday, 25th, 4–15 P.M. Box 12.

No. 55 CHARLESTOWN ST. Owned by Hunnewell heirs; insurance, $6,500; occupied by William Highton & Sons, as hot-air apparatus; insurance, $2,500; occupied by Derby & Kilmer, as office furniture; loss, $40; insurance, $500; originated in basement; cause, spontaneous combustion.

Saturday, 25th, 6–22 P.M. Box 212.

ALBANY AND HAMPDEN ST. Owned by Boston Lead Company; occupied by Boston Lead Company, as manufactory; originated on 3d floor; cause, spontaneous combustion.

Sunday, 26th, 4–27 A.M. Box 66.

No. 44 MIDDLESEX ST. Owned by C. H. Barker; insurance, $2,500; occupied by Mrs. Morrison, as dwelling; loss, $15; originated in basement; cause, hot ashes in wooden receptacle.

Sunday, 26th, 9–27 P.M. Still.

No. 14 NAWN ST. Owned by Owen Nawn; occupied by J. Driscoll, as dwelling; cause, soot in chimney burning.

Sunday, 26th, 9–38 P.M. Box 5.

LOWELL ST. Owned by C. Welensky; loss, $15; insurance, $5,000; occupied by I. Wrofsky, as dwelling; loss, $20; insurance, $500; originated on 3d floor; cause, upsetting of kerosene lamp.

Monday, 27th, 2–35 A.M. Still.

No. 16 GREEN ST. Owned by Robert Shaw heirs; occupied by W. F. Baxter, etc., as eating-house; insurance, $1,000; originated on 1st floor; cause, careless use of kerosene lamp.

Monday, 27th, 7–01 P.M. Box 54.

No. 157 KINGSTON ST. Owned by Thorndike heirs; insurance, $8,000; occupied by I. Fliescher, as tailor shop; loss, $397; insurance, $1,000; occupied by A. Shuman & Co., as clothing; loss, $219; insurance, $6,250; occupied by G. D. Emerson *et al.*; loss, $25; insurance, $2,600; originated on third floor; cause unknown.

Monday, 27th, 8–50 P.M. Box 36.

No. 28 STATE ST. Cause, sparks from chimney mistaken for fire.

Tuesday, 28th, 10–55 P.M. Still.

No. 7 COOPER ST. Owned by Rosanna Meighan; loss, $40; insurance, $2,500; occupied by John Bench, as dwelling; originated on 1st floor; cause, defective chimney.

Tuesday, 28th, 11–30 P.M. Still.

No. 446 QUINCY ST. Owned by J. H. McGrady; loss, $70; insurance, $7,000; occupied by J. H. McGrady, as dwelling; loss, $170; insurance, $2,500; originated on 3d floor; cause unknown.

MARCH.

Wednesday, 1st, 0–43 A.M. Box 718.

YOUNG'S HOTEL, Court Sq.; cause, smoke from stove mistaken for fire.

Wednesday, 1st, 6–42 A.M. Still.

No. 1831 WASHINGTON ST. Owned by C. A. Richards heirs; loss, $75; insurance. $19,977; occupied by J. and E. Campers, as cigars; loss, $70; insurance, $600; originated on 1st floor; cause, careless use of cigar, thrown in sawdust.

Wednesday, 1st, 1–51 P.M. Box 13.

NOS. 93 AND 101 CROSS ST. Owned by M. Williams estate; loss, $191; insurance, $5,000; occupied by P. Derby & Co. *et al.*, as furniture factory; loss, $2,438; insurance, $18,500; originated on 2d floor; cause, careless use of matches.

Wednesday, 1st, 1–51 P.M. Still.

No. 253 Dover st. Owned by J. L. Plimton; loss, $254; insurance, $6,000; occupied by Wm. Wotowicz, as dwelling; loss, $75; originated on 2d floor; cause unknown.

Wednesday, 1st, 7–33 P.M. Box 424.

No. 61 Bunker Hill st. Owned by L. B. Cobb; insurance, $2,000; occupied by L. B. Cobb, as dwelling; insurance, $1,000; cause, soot in chimney burning.

Wednesday, 1st, 11–30 P.M. Still.

No. 8 Wolfert court. Owned by Thomas Hall; loss, $10; insurance, $2,000; occupied by S. McDonald, as dwelling; loss, $10; originated on 2d floor; cause, upsetting kerosene lamp.

Thursday, 2d, 10–56 A.M. Box 112.

No. 23 Colony st. Owned by O. C. R.R. Corporation; loss, $5; occupied by P. Mullen, as dwelling; originated in basement; cause, thawing water-pipes.

Thursday, 2d, 11–16 A.M. Box 521.

No. 199 Green st. Owned by R. Meehan; loss, $263; insurance, $1,000; occupied by L. Tobin, as carpenter; loss, $195; insurance, $500; occupied by E. W. Batson, as carpenter; loss, $70; insurance, $500; originated on 2d floor; cause unknown.

Thursday, 2d, 11–55 A.M. Still.

No. 75 Chauncy st. Cause, boy playing with automatic signal-box.

Thursday, 2d, 0–21 P.M. Box 839.

Western ave. Owned by Geo. W. Hollis; insurance, $5,000; occupied by G. A. Cather, as wheelwright; loss, $495; insurance, $400; originated on 1st floor; cause, overheated stove.

Thursday, 2d, 5–55 P.M. Still.

Boylston st. Cause, electric motor igniting West End car.

Thursday, 2d, 8–20 P.M. Still.

No. 21 Kendall st. Owned by G. H. Peters; insurance, $3,000; occupied by A. Riles, as dwelling; loss, $15; originated on 3d floor; cause, defective chimney.

Thursday, 2d, 10–45 P.M. Box 26.

No. 76 Phillips st. Owned by Boston Co-operative Building Company; loss, $45; insurance, $1,250; occupied by D. C. Crawford, as ice cream; loss, $15; insurance, $300; originated in basement; cause, overheated stove.

Friday, 3d, 7–40 A.M. Still.

South st. Cause, soot in chimney burning.

Friday, 3d, 9–39 A.M. Box 15.

No. 47 Fulton st. Owned by W. Gleason; insurance, $12,000; occupied by E. W. Tyler, as pork products; insurance, $1,000; originated on 1st floor; cause, hanging-lamp igniting ceiling.

Friday, 3d, 6–05 P.M. Still.

No. 29 NORMAN ST. Owned by C. Hollander; insurance, $9,000; occupied by L. Betosky, as dwelling; loss, $5; originated on 3d floor; cause, upsetting kerosene lamp.

Saturday, 4th, 7–30 P.M. Still.

No. 23 WASHINGTON ST. Owned by J. F. Dacey; insurance, $4,600; occupied by J. F. Dacey, as dwelling; insurance, $1,000; originated in basement; cause, overheated furnace.

Sunday, 5th, 10–02 A.M. Box 792.

No. 96 PORTLAND ST. Owned by J. W. Tufts & Co.; loss, $100; insurance, $45,000; occupied by J. W. Tufts & Co., as soda-water apparatus; originated in basement; cause, ignition of oily waste.

Remarks. — H. McElroy was severely burned, and removed to the Massachusetts General Hospital.

Sunday, 5th, 3–38 P.M. Box 4.

BOSTON & MAINE RAILROAD YARD. Owned by Boston & Maine Railroad; loss, $100; occupied by Boston & Maine Railroad, as toolhouse; loss $50; originated on 1st floor; cause, defective chimney.

Sunday, 5th, 4–03 P.M. Box 54.

NOS. 61 AND 63 HARRISON AVE. Owned by J. C. Joy; loss, $214; insurance, $18,000; occupied by S. Flashman & Co., as cigars; loss, $300; insurance, $3,000; occupied by G. E. Fharter *et al.*, as locksmith, etc.; loss, $57; insurance, $1,000; originated on 2d floor; cause, rats and matches.

Sunday, 5th, 5–51 P.M. Box 134.

No. 135 BOWEN ST. Owned by P. Gorham; loss, $10; insurance, $2,500; occupied by C. Doyle, as dwelling; loss, $10; originated on 3d floor; cause, children and matches.

Remarks. — Mrs. Doyle was severely burned by the flames while trying to extinguish the fire.

Sunday, 5th, 5–55 P.M. Still.

No. 17 MORTON ST. Owned by J. Rosenthal; insurance, $3,000; occupied by M. Fisher, as dwelling; loss, $2; originated on 2d floor; cause, breaking kerosene lamp.

Sunday, 5th, 7–49 P.M. Box 214.

No. 1959 WASHINGTON ST. Cause, smoke mistaken for fire.

Sunday, 5th, 8–15 P.M. Still.

No. 8 STILLMAN ST. Owned by F. B. Jacobs; insurance, $2,500; occupied by S. Goldstein, as dwelling; insurance, $1,000; originated on 2d floor; cause, breaking kerosene lamp.

Monday, 6th, 10–45 A.M. Box 519.

No. 3274 WASHINGTON ST. Owned by M. Gately; insurance, $3,000; occupied by E. L. Thurlow *et al.*, as dwelling; insurance, $1,000; originated on 3d floor; cause, spontaneous combustion.

Monday, 6th, 0–10 P.M. Still.

No. 10 FAY ST. Owned by Max Levan; loss, $85; insurance, $2,500; occupied by S. Spear, as dwelling; loss, $135; insurance, $600; originated on 2d floor; cause, explosion of kerosene stove.

Monday, 6th, 7–11 P.M. Box 6.

No. 9 WILLARD ST. Needless alarm. Plumber's pot on the roof.

Monday, 6th, 7–50 P.M. Still.

No. 20 BOWDOIN ST. Owned by Parsons heirs; loss, $16; insurance, $10,000; occupied by Mary Hoyt, as dwelling; loss, $25; insurance, $2,000; originated on 2d floor; cause unknown.

Monday, 6th, 10–07 P.M. Box 133.

E. NINTH ST. Owned by F. Dwelly; loss, $5; occupied by F. Dwelly, as boat-house; originated on 1st floor; cause, breaking kerosene lamp.

Monday, 6th, 10–31 P.M. Box 523.

No. 651 CENTRE ST. Owned by I. Myrick; loss, $221; insurance, $1,000; occupied by Norcross & Myrick, as stable; loss, $50; insurance, $1,000; originated on 2d floor; cause unknown.

Tuesday, 7th, 3–05 A.M. Box 412.

No. 70 LAWRENCE ST. Needless alarm.

Tuesday, 7th, 7–18 P.M. Box 6.

No. 95 LOWELL ST. Cause, careless use of lamp; needless alarm.

Wednesday, 8th, 7–45 A.M. Still.

No. 109 STATE ST. Cause, crossing of telegraph wires.

Wednesday, 8th, 11–10 P.M. Box 989.

CEDAR GROVE CEMETERY. Owned by Cedar Grove Cemetery Association; loss, $2,000; insurance, $2,000; occupied by Cedar Grove Cemetery Association, as stable and greenhouses; loss, $3,000; originated in greenhouse, extended to adjoining buildings; cause unknown.

Thursday, 9th, 8–45 A.M. Box 2.

False alarm.

Thursday, 9th, 8–22 P.M. Box 621.

No. 209 MAVERICK ST. Owned by J. H. Critchett; loss, $50; occupied by J. E. Floyd, as storage; loss, $116; originated in basement; cause, slacking of lime.

Thursday, 9th, 9–17 P.M. Box 239.

No. 816 SHAWMUT AVE. Owned by Robinson heirs; loss, $6; insurance, $750; occupied by Wm. Bragg *et al.*, as blacksmith, etc.; insurance, $500; originated on roof; cause, electric wires.

Thursday, 9th, 11–29, 11–37 P.M. Boxes 922, 324.

LONGFELLOW ST. Owned by Geo. A. Cox; loss, $1,500; insurance, $2,500; cause unknown.

Remarks. — This fire occurred in an unfinished wooden building, and extended to an adjoining structure in process of erection, the first being entirely consumed, the second considerably damaged.

Thursday, 9th, 11-31 P.M. Still.

No. 545 WASHINGTON ST. Owned by C. F. Adams estate; loss, $15; insurance, $44,000; occupied by B. F. Keith, as theatre; insurance, $25,000; originated on 4th floor; cause, electric wires.

Friday, 10th, 3-26 A.M. Box 632.

No. 36 DECATUR ST. Owned by F. E. Gueth; loss, $1,368; insurance, $4,200; occupied by F. E. Gueth, as bakery; loss, $898; insurance, $3,200; originated in basement; cause, boiling over of kettle of fat.

Friday, 10th, 3-38 A.M. Box 149.

CONGRESS ST. Owned by N. Y. & N. E. R.R.; loss, $100; insurance, $100; occupied by N. Y. & N. E. R.R., as sheds; loss, $350; insurance, $350; originated in shed; cause, sparks from boiler-furnace.

Friday, 10th, 6-40 A.M. Box 23.

No. 13 GREEN ST. Owned by N. Whiting; loss, $50; insurance, $20,000; occupied by H. Solomon *et al.*, as tailor; loss, $440; insurance, $5,750; originated on 4th floor; cause, sparks from forge.

Friday, 10th, 4-24, 4-28, 4-31, 4-34, Box 52. 4-39, Box 54. 4-51, Box 56.

LINCOLN, ESSEX, TUFTS, AND KINGSTON STS.

NOS. 63 TO 97 LINCOLN ST. Owned by F. L. Ames, 8 stories, stone and brick. Size 156 by 209; loss, $365,100; insurance, $651,750; occupied by Paragon Needle Company, as office; loss, $4,263; insurance, $3,000; occupied by J. S. Fogg & Co., as boots and shoes; loss, $16,789; insurance, $15,000; occupied by Hanover Shoe Company, as boots and shoes; loss, $6,115; insurance, $5,000; occupied by O. Kreisman, as boots and shoes; loss, $5,171; insurance, $4,000; occupied by Ewing Bros., as blankets; loss, $6,000; insurance, $6,000; occupied by American Pin Company, as office; loss, $2,000; insurance, $2,000; occupied by R. M. Appleton & Co., as office; loss, $1,351; insurance, $1,500; occupied by C. W. Spurr, as office; loss, $1,000; insurance, none; occupied by Sash Balance Company, as office; loss, $500; insurance, none; occupied by W. C. Brien Shoe Company, as office; loss, $5,000; insurance, $3,000; occupied by T. C. Peters, as office; loss, $1,300; insurance, $1,300; occupied by Merrick Thread Company, as office; loss, $37,253; insurance, $28,000; occupied by Hand Lasting Machine Company, as office; loss, $1,472; insurance, $2,000; occupied by Union Hammock Company, as office; loss, $1,500; insurance, $1,500; occupied by M. A. Packard, as office; loss, $675; insurance, $500; occupied by National India Rubber Company, as office; loss, $14,019; insurance, $30,000; occupied by W. C. Rogers Company, as office; loss, $3,000; insurance, $1,000; occupied by Woonsocket Rubber Company, as salesroom; loss, $21,648; insurance, $49,250; occupied by Barbour Bros., as linen threads; loss, $55,718; insurance, $50,500; occupied by Amazon Machine Company, as workrooms; loss, $3,500; insurance, $3,000; occupied by Redpath Bros., as boots and shoes; loss, $75,000; insurance, $34,750; occupied by B. F. Jacquith & Co., as rubber goods; loss, $60,393; insurance, $62,000; occupied by H. Partridge & Co., as fancy goods; loss, $144,675; insurance, $154 250; occupied by J. F. Ryan, hair-dresser, as workroom; loss, $1,000; insurance, $1,000; occupied by Metropolitan Sewage Testing Department; loss, $40,000; occupied by Hathaway, Soule & Harrington, as boots and shoes; loss, $72,163; insurance, $67,500; occupied by Lariat Manufacturing Com-

pany, as warerooms; loss, $4,000; insurance, $4,000; originated on third floor, extended to other buildings; cause unknown.

The following-named persons were more or less injured by being burned, or in jumping from the windows: Miss Margaret Flynn, Miss Margaret Love, Miss Ada Perrins, Miss Richards, Miss B. Alvis, Miss M. Richards, Miss L. Scott, Miss L. Rideout, Miss Leahy, Mr. David Turner, Mr. Joshua Shepard, Mr. John F. Ryan, Mr. Charles Wellsworth, Mr. Michael Harkins, Mr. Michael Devlin, Mr. F. Marshland, Mr. Francis Partridge, Mr. Theodore Crocker, Mr. Charles Gaskins, who died soon after his arrival at the hospital.

The following-named persons were killed outright: Mr. L. Redpath, Mr. Charles Odiorne, Mr. Harry Turner, Mr. F. Meadowcroft, Mr. Louis Cotting.

The following members of the department were injured: J. B. Harvey, jr., of Truck 17, T. J. Giblin, of Engine 7, P. M. Sullivan, of Engine 4, T. C. Twiss, of Hose 10, R. J. Restarrick, of Truck 9, and B. Pond and L. Rich, of Engine 1, of Somerville.

Efficient and valuable assistance was rendered by engines from Cambridge, Somerville, Chelsea, Lynn, Malden, Salem, Milton, Quincy, Medford, Everett, Fall River, Newton, Brookline, and Providence.

Nos. 66 to 104 Lincoln st. Owned by J. S. Farlow heirs; loss, $214,149; insurance, $184,000; occupied by Singer Manufacturing Company, as sewing-machines; occupied by Baxter, Stoner & Co., as sole leather; loss, $97,825; insurance, $93,000; occupied by Swain, Fuller & Co., as shoe machinery; loss, $8,000; insurance, $6,500; occupied by Union Machine Company, as sewing-machines; loss, $4,011; insurance, $2,500; occupied by Corrugated Wire Company, as wire for shoes; loss, $6,894; insurance, $7,250; occupied by D. Knox & Son, as shoe machinery; occupied by Wire Grip Fastening Company, as shoe machinery; loss, $21,482; insurance, $16,000; occupied by Rockingham Company, as shoe machinery; loss, $2,000; insurance, $2,000; occupied by C. E. Dingley *et al.*, as machinery; loss, $2,300; insurance, none; occupied by J. H. Fitz, as shirt factory; occupied by Brown, Durrell & Co., as storage; see Kingston st.; occupied by M. S. Cahill & Co., as shoe findings; loss, $13,118; insurance, $13,240; occupied by H. W. Eddy, as shoe findings; loss, $1,585; insurance, $1,500; occupied by Power Punch Machine Company, as machine shop; loss, $7,200; insurance, $5,000; occupied by C. L. Richards, as grocer; loss, $13,600; insurance, $10,000; occupied by Scott & Williams, as knitting-goods; loss, $1,086; insurance, $1,000; occupied by A. L. Perkins & Co., as shoe tools; loss, $4,500; insurance, $4,500; occupied by Standard Rivet Company, as workrooms; loss, $4,786; insurance, $4,000; occupied by Merrick Sewing Machine Company, as workrooms; loss, $23,400; insurance, $16,000; occupied by Goodyear Rubber Shoe Company, as boots and shoes; loss, $28,025; insurance, $22,750; occupied by Lewis & Pike, as boots and shoes; loss, $619; insurance, $1,250.

Nos. 104 to 132 Kingston st. Owned by Boston Real Estate Trust Company; loss, $166,172; insurance, $270,000; occupied by Brown, Durrell & Co., as small wares; occupied by Willimantic Thread Company, as salesroom; loss, $67,267; insurance, $77,500; occupied by H. P. Emerson & Co., as small wares; loss, $25,479; insurance, $29,000; occupied by Brainard & Armstrong, as spool silks; loss, $24,163; insurance, $35,000; occupied by Day, Callaghan & Co., as cloaks, etc.; loss, $85,581; insurance, $75,000; occupied by Richardson, Howe & Lovejoy, as ladies' wraps; loss, $65,498; insurance, $57,300; occupied by T. D. Whitney & Co., as salesroom; loss, $100; insurance, $500.

Nos. 128 to 132 Essex st. Owned by James L. Little; loss, $9,418; insurance, $35,000; occupied by Walter C. Barnes, as paper boxes; loss, $15,265; insurance, $12,300; occupied by A. S. Morrison & Bros.,

as hosiery; loss, $8,949; insurance, $11,500; occupied by D. D. Fiske, as dining-rooms; loss, $1,325; insurance, $3,500.

NOS. 108 TO 112 LINCOLN ST. Owned by Peter B. Brigham heirs; loss, $36,119; insurance, $30,000; occupied by Globe Buffer Company, as flag factory; loss, $29,904; insurance, $14,400; occupied by S. B. Rogers & Co., as leather-board; loss, $6,667; insurance, $8,000; occupied by Boston Lasting Machine Company, as machine shop; loss, $4,600; insurance, $5,000; occupied by Flagg Manufacturing Company, as machinists; loss, $18,000; insurance, $8,000; occupied by Copeland Treeing Company, as machinists; loss, $350; insurance, $350; occupied by Union Edge Setting Company, as office, etc.; loss, $5,000; insurance, $4,000; occupied by Hawkins Machine Company, as salesroom: loss, $2.800; insurance, $2,500; occupied by National Fibre Board Company, as leather-board; loss, $3,752; insurance, $4,000.

NOS. 111 AND 113 LINCOLN ST. Owned by United States Hotel Company; loss, $4,400; insurance, $5,200; occupied by James Sullivan, as liquors; loss, $7,000; insurance, $8,000; occupied by O. A. Ward, as grocer; loss, $135; insurance, $500; occupied by Thomas Gibbons, as painters; occupied by G. H. Binney *et al.*, as storage, etc.; loss, $1.321; insurance, $1,400; occupied by Mr. Hughes, as dwelling.

NO. 109 LINCOLN ST. Owned by United States Hotel Company; loss, $2,400; insurance, $2,800; occupied by O. B. Canwell, as restaurant; loss, $800; insurance, $400.

NOS. 131 AND 133 ESSEX ST. Owned by Ludlow Manufacturing Company; loss, $63,103; insurance, $50,000; occupied by Enterprise Rubber Company, as boots and shoes; loss, $17,805; insurance, $15,000; occupied by Ludlow Manufacturing Company, as twines; loss, $8,553; insurance, $12,000; occupied by W. G. Turner, as shoe factory; loss, $7,141; insurance, $8,000; occupied by E. W. Jones *et al.*, as jewelry; loss, $700; insurance, $3,700.

NOS. 52 TO 56 LINCOLN ST. (Water damage.) Owned by A. T. Brown; loss, $2,800; insurance, $45,000; occupied by Farnesworth, Hoyt & Co., as boots and shoes; occupied by George E. Keith & Co., as boots and shoes; occupied by L. A. Crossette, as boots and shoes; occupied by Standard Smoke Consumer Company, as office.

NOS. 124 TO 126 ESSEX ST. (Water damage.) Owned by J. L. Little; occupied by Pierce & Cox, as plumbers; loss, $75; insurance, $2,600; occupied by Thomas C. Lowe, as carpenter; loss, $10; insurance, $200; occupied by Mary McCarthy, as dwelling.

NOS. 107 AND 109 KINGSTON ST. (Water damage.) Owned by Boston Real Estate Trust Company; loss $1,057; insurance, $80,000; occupied by Claflin, Young & Stanley, as underwear; loss, $3,200; insurance, $165,500; occupied by A. W. Rice & Co., as dry goods; loss, $1,075; insurance, $35,000; occupied by Creed, Kellogg & Co., as jewelry; loss, $5,468; insurance, $10,000; occupied by Williams, Savage & Co., as silks; loss, $15; insurance, $6,000; occupied by Frost Hill Spring Company, as towels; loss, $30; insurance, $1,000; occupied by Holmes & Co., as Athletic Company; loss, $700; insurance, $20,000; occupied by A. G. Cheever & Co., as paper boxes; loss, $425; insurance, $6,000; occupied by J. W. Smith & Co., as suspenders; loss, $135; insurance, $13,500.

NOS. 55 TO 59 LINCOLN ST. (Water damage.) Owned by Edward I. Browne; loss, $1,940; insurance, $11,500; occupied by R. W. Cone & Co., as boots and shoes; loss, $491; insurance, $5,800; occupied by Riley-Pebbles Company, as boots and shoes; loss, $341; insurance, $1,250; occupied by Lilly, Brackett & Co., as boots and shoes; loss, $141; insurance, $500; occupied by Tubular Rivet and Stud Company, as shoe findings; loss, $408; insurance, $11,500; occupied by E. C. Schluecker, as machinery; loss, $714; insurance, $9,000; occupied by Mellen, Bray & Co., as machinery; loss, $453; insurance, $20,000.

Nos. 127 and 129 Kingston st. (Water damage.) Owned by Fifty Associates, C. U. Cotting, agent; loss, $223; insurance, $40,000; occupied by C. E. Walker & Co., as toys; occupied by Coates Thread Company, as threads.

Nos. 135 and 137 Kingston st. (Water damage.) Owned by Cotting & Welch, trustees; loss, $162; insurance, $5,000; occupied by J. B. Smith, as dry goods; insurance, $35,000.

Nos. 121 and 125 Kingston st. (Water damage.) Owned by Fifty Associates, C. U. Cotting, agent; loss, $162; insurance, $45,000; occupied by Eppler Welt Machine Company, as salesroom; loss, $87; insurance, $25,000; occupied by Cushman Bros. & Co., as window shades; insurance, $13,000; occupied by A. S. Young, as clothing; insurance, $13,000; occupied by H. O. Trafton & Co., as linen and ribbons; insurance, $19,000; occupied by T. O. Gardner, as infants' clothing; insurance, $15,000; occupied by Eppler, Adams & Co., as sewing-machines; insurance, $51,000.

Nos. 138 to 144 Kingston st. Owned by United States Hotel Company; loss, $4,659; insurance, $15,000; occupied by Emergency Hospital Company, as hospital; loss, $1,300; insurance, $17,800.

Essex st. Owned by William E. French; loss, $581; insurance, $2,500; occupied by William E. French, as distillery; loss, $12,684; insurance, $12,000.

No. 131 Kingston st. (Water damage.) Owned by A. P. Loring; loss, $471; insurance, $40,000; occupied by Fiedler Moeldner, as dress trimmings; insurance, $15,000; occupied by D. L. Sheplie, as hat factory; loss, $500; insurance, $50,000.

No. 111 Kingston st. (Water damage.) Owned by I. Atkins heirs; loss, $39; insurance, $2,500; occupied by W. H. Meldram, as lubricators; occupied by J. D. Kenney, as painter; occupied by J. A. Driscoll, as locksmith; occupied by G. H. Simmons, as carpenter.

Beach, Kingston, and Lincoln sts. Owned by United States Hotel Company; loss, $14,195; insurance, $115,000; occupied by United States Hotel Company, as hotel; loss, $3,302; insurance, $70,500; occupied by Hastings & Co., as butter store; loss, $115; insurance, $1,400; occupied by C. W. Smith, as fruits; occupied by C. E. Spear, as provisions; loss, $100; occupied by various parties, as offices and stores; no loss; insurance, $12,600.

Nos. 118 and 128 Lincoln st. Owned by C M. Barnard; loss, $2,800; insurance, $30,000; occupied by Proctor, Hunt & Co., as leathers; loss, $10,344; insurance, $124,500; occupied by C. F. Hovey & Co., as storage; loss, $10,160; insurance, $250,000.

Friday, 10th, 5-30 P.M. Still.

No. 13 Green st. Owned by N. Whiting; insurance, $20,000; occupied by H. Solomons, as tailor; insurance, $700; originated on 3d floor; cause, supposed incendiary.

Saturday, 11th, 9-02 A.M. Still.

No. 210 Dover st. Owned by L. C. Hutchings; loss, $10; insurance, $6,500; occupied by M. Singleton, as dwelling; loss, $10; originated on 2d floor; cause, careless smoking on lounge.

Sunday, 12th, 10-20 A.M. Still.

Nos. 166 and 168 High st. Owned by D. Webster King; insurance, $40,000; occupied by D. Webster King, as glue storage; insurance, $15,000; originated in basement; cause, spontaneous combustion.

Monday, 13th, 4-19 P.M. Box 57.

No. 75 HARVARD ST. Owned by K. Sullivan; loss, $29; insurance, $4,000; occupied by J. Sullivan *et al.*, as dwelling; loss, $10; originated on 3d floor; cause, building fire with kerosene.

Remarks. — Margaret Lane was severely burned and removed to the hospital.

Monday, 13th, 8-07 P.M. Box 47.

No. 465 ATLANTIC AVE. Owned by Dillon heirs; insurance $8,000; occupied by W. W. McNaught, as junk store; loss, $150; insurance, $12,000; originated on 1st floor; cause, supposed incendiary.

Monday, 13th, 9-03 P.M. Box 928.

No. 23 PARK ST. Owned by J. W. Calnan; loss, $1,200; insurance, $9,000; unoccupied dwelling; originated on 3d floor; cause unknown.

Tuesday, 14th, 0-41 P.M. Box 15.

No. 150 COMMERCIAL ST. Owned by Wm. Gaston; insurance, $8,000; occupied by Smith Bros., as fruits, etc.; originated in basement; cause, careless use of candle.

Tuesday, 14th, 0-49 P.M. Box 131.

No. 208 H ST. Owned by H. J. Bowen; loss, $5; occupied by Annie Rowell, as dwelling; loss, $10; originated on 2d floor; cause, clothes taking fire from stove.

Tuesday, 14th, 6-41 P.M. Still.

No. 137 BEACH ST. Owned by W. S. Hills; loss, $15; insurance, $15,000; occupied by M. Sullivan *et al.*, as dwelling; originated on 1st floor; cause, hot ashes in wooden receptacle.

Tuesday, 14th, 11-45 P.M. Still.

No. 3 EATON PL. Owned by Baitler & Gordon; loss, $10; insurance, $3,000; occupied by L. Baer, as dwelling; originated on 2d floor; cause, rats and matches.

Wednesday, 15th, 8-06 A.M. Still

No. 520 HARRISON AVE. Cause, breaking automatic wires.

Wednesday, 15th, 8-13 A.M. Box 154.

No. 680 EAST NINTH ST. Cause, burning fat in stove oven.

Wednesday, 15th, 8-37 A.M. Box 5.

No. 51 WALL ST. Owned by Hurley heirs; loss, $298; insurance, $4,000; occupied by M. Goldfield, as dwelling; loss, $25; originated on 4th floor; cause, ignition of kerosene stove.

Wednesday, 15th, 0-31 P.M. Box 271.

No. 22 VALENTINE ST. Owned by L. B. Abbott; loss, $25; insurance, $10,000; occupied by W. G. Maddox, as dwelling; loss, $25; originated on 2d floor; cause, careless use of matches.

Wednesday, 15th, 6-58 P.M. Box 424.

No. 68 TREMONT ST. Owned by F. J. Murphy; cause, soot in chimney burning; needless.

Wednesday, 15th, 10-42 P.M. Box 129.

No. 100 C st. Owned by F. O'Brien; loss, $198; insurance, $2,000; occupied by D. Downing, as dwelling; loss, $50; originated on 1st floor; cause, upsetting kerosene lamp.

Thursday, 16th, 0-47 A.M. Box 131.

No. 10 Douglass st. Owned by Geo. Martin; loss, $300; insurance, $500; occupied by Geo. Martin, as stable; loss, $1,000; insurance, $1,100; originated on 1st floor; cause unknown.

Thursday, 16th, 11 A.M. Still.

No 181 Medford st. Owned by Belough estate; loss, $5; insurance, $800; occupied by J. H. Walters, as stable; originated on 1st floor; cause, upsetting stove.

Thursday, 16th, 3-32 P.M. Still.

No. 19 Eutaw st. Owned by C. Blackstock; loss, $41; insurance, $3,500; occupied by C. Blackstock *et al.*, as dwelling; loss, $30; insurance, $700; originated on 3d floor; cause, rats and matches.

Thursday, 16th, 7-20 P.M. Box 99.

No. 229 Newbury st. Owned by W. B. Hopkins; cause, soot in chimney burning; needless.

Friday, 17th, 6-48 A.M. Box 74.

No. 2 East Canton st. Owned by Lawrence heirs; loss, $535; insurance, $25,000; unoccupied dwelling; originated on 5th floor; cause, hot ashes in wooden receptacle.

Friday, 17th, 7-14 P.M. Box 637.

No. 155 Liverpool st. Owned by L. Cahill; insurance, $1,000; occupied by J McCarthy, as blacksmith; originated in yard; extended to building; cause, incendiary.

Friday, 17th, 8 A.M. Still.

No. 7 Bennet ave. Owned by D. Flynn; insurance, $1,000; occupied by A. Chaffelo, as dwelling; loss, $15; originated on 2d floor; cause, careless use of candle.

Friday, 17th, 8-20 P.M. Still.

B. & M. Railroad track.

Remarks. — Fire in freight-car, owned by B. & M. R.R.; cause unknown.

Friday, 17th, 9-03 A M. Box 49.

Nos. 11 and 13 Summer st. Owned by A. Shuman; insurance, $40,000; occupied by Call & Tuttle *et al.*, as tailors, etc.; insurance, $41,500; originated on 3d floor; cause unknown.

Friday, 17th, 10-44 P.M. Box 114.

No. 170 Bolton st. Cause, smoke mistaken for fire; needless.

Friday, 17th, 11-30 P M. Still.

No. 350 Boylston st. Owned by F. Dupee; loss, $350; insurance, $17,500; occupied by E. A. Parsons, as dress-maker; loss, $2,307; insurance, $10,000; originated on 2d floor; cause, electric heating-iron igniting goods.

Saturday, 18th, 6-52 P.M. Box 64.

No. 898 WASHINGTON ST. Owned by J. Wilson; occupied by W. B. Norton, as restaurant; cause, smoke from stove mistaken for fire.

Saturday, 18th, 7-45 P.M. Still.

No. 261 RUTHERFORD AVE. Owned by J. Palmer; insurance, $2,300; occupied by J. Palmer, as blacksmith; insurance, $7,500; originated on 1st floor; cause, spontaneous combustion in oily waste.

Saturday, 18th, 8-10 P.M. Still.

No. 23 ESSEX ST. Owned by H. Crane; loss, $10; insurance, $4,000; occupied by J. L. Armstrong, as dwelling; loss, $200; insurance, $700; originated on 1st floor; cause, careless use of matches.

Sunday, 19th, 0-52 A.M. Box 54.

No. 19½ BEACH ST. Owned by P. Fay; insurance, $6,000; occupied by W. C. Bulvan *et al.*, as sofa beds; loss, $125; insurance, $1,000; originated on 3d floor; cause unknown.

Sunday, 19th, 7-24, 7-35, 7-43 A.M. Boxes 729 and 35.

Nos. 76 TO 88 TREMONT ST. Owned by Evangelical Baptist Society; insurance, $124,000; occupied by Evangelical Baptist Society, as Tremont Temple; occupied by F. L. Lubin, as trusses, etc.; loss, $2,000; insurance, $4,000; occupied by R. C. Sargent, as dentist; loss, $292; insurance, $500; occupied by S. C. McDonnell, as gloves, etc.; loss, $8,645; insurance, $12,650; occupied by Federhen & Sons, as opticians; loss, $2,744; insurance, $1,800; occupied by W. G. Corthell; loss, $1,000; insurance, $1,000.

Nos. 60 TO 70 SCHOOL ST. AND TREMONT ST. Owned by H. D. Parker heirs; loss, $9,037; insurance, $363,000; occupied by J. R. Whipple, as hotel; loss, $6,150; insurance, $155,250; occupied by S. A. Beckard, as gents' goods; loss, $5,803; insurance, $32,000.

No. 98 TREMONT ST. Occupied by W. S. Butler, as dry goods; loss, $9,000; insurance, $160,000.

Nos. 4 AND 6 BOSWORTH ST. Occupied by W. D. Park, as hotel; loss, $56; insurance, $12,000; originated on 2d floor of Tremont Temple; cause unknown.

Sunday, 19th, 10-42 A.M. Still.

No. 302 FEDERAL ST. Owned by J. Tirrell; insurance, $15,000; occupied by J. S. Newell & Co., as machinists; insurance, $25,000; originated in basement; cause, explosion of kerosene lamp.

Sunday, 19th, 10-50 A.M. Still.

No. 64 WINTHROP ST. Cause, soot in chimney burning.

Sunday, 19th, 2-52 P.M. Box 188.

WILLOW COURT AND BOSTON ST. Cause, soot in chimney burning; needless.

Sunday, 19th, 4-42 P.M. Box 78.

No. 102 E. BROOKLINE ST. Owned by L. A. Bodrie; loss, $20; insurance, $5,000; occupied by G. Gould, as outhouse; loss, $50; insurance, $2,000; originated on 1st floor; cause unknown.

Sunday, 19th, 10-54 P.M. Box 23.

No. 30 CRESCENT PL. Owned by Brown heirs; loss, $85; insurance, $8,000; occupied by H. Sampson, as dwelling; loss, $25; insurance, $500; originated on 2d floor; cause, careless use of lamp.

Monday, 20th, 5-22 P.M. Box 249.

No. 54 CONANT ST. Cause, child playing with matches igniting his clothing.

Monday, 20th, 6-22 P.M. Box 16.

No. 106 STATE ST. Owned by C. U. Cotting, trustee; loss, $750; insurance, $3,000; occupied by J. H. Moulton, as express office; loss, $100; occupied by McAdams & Hall, as stationers; loss, $2,164; insurance, $4,800; originated on 1st floor; cause, breaking kerosene lamp.

Tuesday, 21st, 3-41 A.M. Box 86.

No. 1625 WASHINGTON ST. Owned by Smith heirs; loss, $300; insurance, $9,500; occupied by C. E. Bryant, as billiards; loss, $60; insurance, $2,100; originated on 1st floor; cause, rats and matches.

Tuesday, 21st, 4 A.M. Box 336.

No. 6 MERRILL ST. Owned by S. P. Bancroft; loss, $1,417; insurance, $3,000; occupied by C. R. McDowell, as dwelling; loss, $1,586; insurance, $2,700; originated on 2d floor; cause, overheated furnace-pipe.

Tuesday, 21st, 5-37 P.M. Box 41.

No. 7 SPRING LANE. Owned by Old South Church Society; loss, $54; insurance, $12,000; unoccupied; originated on 2d floor; cause, ignition of leaky gas.

Wednesday, 22d, 1-22 A.M. Still.

No. 7 BALDWIN PL. Owned by A. Finklestein; loss, $50; insurance, $10,000; occupied by H. Levinson, as dwelling; loss, $15; originated on 4th floor; cause, supposed incendiary.

Wednesday, 22d, 11-16 A.M. Box 217.

No. 1232 TREMONT ST. Owned by Crossing heirs; loss, $50; insurance, $2,400; occupied by F. Cannon, as dwelling; originated in basement; cause unknown.

Wednesday, 22d, 0-26 P.M. Box 127.

No. 67 BAXTER ST. Owned by H. Orchard; loss, $20; insurance, $1,500; occupied by S. McKinley, as dwelling; originated in basement; cause, defective chimney.

Wednesday, 22d, 3-29 P.M. Box 259.

No. 25 AMORY ST. Cause, explosion of malt mill in brewery.

Wednesday, 22d, 9-51 P.M. Box 213.

No. 16 ADAMS ST. Owned by J. Casey; loss, $12; insurance, $1,200; occupied by B. Concannon, as dwelling; loss, $7; insurance, $600; originated on 2d floor; cause, explosion of kerosene lamp.

Thursday, 23d, 9-25 A.M. Box 92.

No. 673 BOYLSTON ST. Owned by Newcomb & Frost; loss, $143; insurance, $15,000; occupied by I. W. Upham *et al.*, as dwelling; insurance, $6,900; originated on 2d floor; cause, defective chimney.

Thursday, 23d, 6-10 P.M. Still.

No. 453 BROADWAY. Owned by G. H. Sayward; occupied by A. R. Specht, as hair goods; originated in basement; cause, hot ashes in wooden receptacle.

Thursday, 23d, 6-48 P.M. Still.

No. 135 London st. Owned by N. E. Wheaton; loss, $45; insurance, $3,500; occupied by N. E. Wheaton *et al*, as dwelling; loss, $30; insurance, $2,400; originated on 3d floor; cause, upsetting of kerosene lamp.

Saturday, 25th, 2-07 P.M. Box 465.

HADLEY ST. Cause, bonfire; boys and matches.

Saturday, 25th, 7-53 P.M. Still.

No. 23 E. SPRINGFIELD ST. Owned by A. Morrisey; insurance, $5,000; occupied by A. C. Sheridan, as dwelling; loss, $15; originated on 3d floor; cause, explosion of kerosene lamp.

Sunday, 26th, 0-30 A.M. Box 972.

BELLOWS COURT. Owned by Geo. Erhart; loss, $1,342; insurance, $3,500; unfinished dwelling; originated on 2d floor; cause, upsetting of stove used to dry plastering.

Sunday, 26th, 2-16 A.M. Box 37.

No. 210 STATE ST. Owned by K. W. Sears estate; loss, $825; insurance, $6,000; occupied by O. W. Alden & Co., as teas and coffees; loss, $3,000; insurance, $5,000; occupied by Barrows & Ryan, as teas, etc.; loss, $645; insurance, $1,000; originated on 2d floor; cause unknown.

Sunday, 26th, 3-29 A.M. Still.

No. 47 PIEDMONT ST. Owned by J. Smith; loss, $5; insurance, $2,500; occupied by J. E. Knight, as dwelling; originated on 1st floor; cause, careless use of matches.

Sunday, 26th, 9-34 A.M. Box 36.

No. 45 COURT ST. Owned by A. Tomfohrde; loss, $2,430; insurance, $20,000; occupied by A. Tomfohrde, as dining-room; loss, $1,200; insurance, $5,000; originated in basement; cause unknown.

Sunday, 26th, 6-37 P.M. Still.

WASHINGTON ST. Owned by E. Bangs; insurance, $80,000; occupied by M. Clark, as hotel; insurance, $60,000; originated in basement; cause, overheated stove.

Sunday, 26th, 10-07 P.M. Still.

No. 149 BROAD ST. Cause, smoke mistaken for fire.

Monday, 27th, 10-17 A.M. Box 59.

No. 264 FEDERAL ST. Owned by T. C. Wales estate; loss, $22; insurance, $2,000; occupied by P. Leahy, as dwelling; loss, $10; originated on 4th floor; cause, sparks from chimney.

Monday, 27th, 7-46 P.M. Box 62.

No. 201 ELIOT ST. Owned by J. Stevenson; insurance, $1,500; occupied by E. Smith, as dwelling; loss, $2; originated on 2d floor; cause, breaking kerosene lamp.

Tuesday, 28th, 0-50 P.M. Still.

No. 128 POPLAR ST. Owned by E. C. Wheeler; insurance, $1,500; occupied by H. D. Silk, as dwelling; originated in basement; cause, spontaneous combustion in oily rags.

Tuesday, 28th, 0-51 P.M. Box 421.

No. 26 MAIN ST. Owned by J. S. Whiting; loss, $30; insurance, $3,000; occupied by W. A. Pierce, as plumber; loss, $48; insurance, $600; originated on 1st floor; cause, explosion of naphtha lamp.

Tuesday, 28th, 2-20 P.M. Still.

No. 26 MAIN ST. Cause, ignition of refuse from previous fire.

Tuesday, 28th, 2-53 P.M. Still.

No. 5 EXETER ST. Owned by G. S. Hale; occupied by G. S. Hale, as dwelling; cause, soot in chimney burning.

Tuesday, 28th, 3-51 P.M. Box 631.

NOS. 92 AND 94 SUMNER ST. Owned by L. F. Lambert; loss, $642; insurance, $7,000; occupied by E. Murphy, as dwelling; loss, $76; insurance, $1,500; occupied by P. J. Culnane, as dwelling; loss, $25; insurance, $1,000; originated on 1st floor; cause unknown.

Tuesday, 28th, 8-15 P.M. Still.

No. 32 BOWERS ST. Owned by H. J. Wright; loss, $63; insurance, $3,000; occupied by H. M. Shaw, as dwelling; loss, $50; originated on 1st floor; cause, explosion of kerosene lamp.

Wednesday, 29th, 0-45 A.M. Still.

No. 194 HARRISON AVE. Owned by Geo. C. Lord; loss, $69; insurance, $5,600; occupied by R. Tower, as dwelling; loss, $32; insurance, $1,500; originated on 3d floor; cause, rats and matches.

Wednesday, 29th, 8-28 A.M. Box 414.

Cause, a loaded team backed against the box breaking the connections.

Wednesday, 29th, 11-39 A.M. Box 136.

No. 589 EAST FIRST ST. Owned by F. W. Bowles; loss, $10; insurance, $1,500; occupied by Chas. Reiley, as dwelling; loss, $5; originated on 3d floor; cause, rats and matches.

Wednesday, 29th, 3-05 P.M. Still.

BYRON ST. Owned by F. Farrell; loss, $50; insurance, $1,000; occupied by T. Sexton, as dwelling; originated on 2d floor; cause, children and matches.

Wednesday, 29th, 6–30 P.M. Still.

NO. 244 FEDERAL ST. Owned by N. Y. & N. E. R.R.; loss, $10; insurance, $15,000; occupied by L. Sahken *et al.*, as tailor, etc.; loss, $20; insurance, $8,750; originated on 3d floor; cause, supposed incendiary.

Wednesday, 29th, 7–08 P.M. Box 679.

GLADSTONE ST. Grass fire; cause unknown.

Wednesday, 29th, 8–22 P.M. Box 9.

NO. 2 HANOVER AVE. Owned by M. Doherty heirs; insurance, $4,500; occupied by M. J. Ryan, as dwelling; originated on 4th floor; cause, careless use of matches.

Wednesday, 29th, 10–26 P.M. Box 66.

NO. 50 MIDDLESEX ST. Owned by H. Mather; occupied by E. Seales, as dwelling; loss, $8; originated on 3d floor; cause, breaking kerosene lamp.

Thursday, 30th, 0–50 A.M. Still.

EXETER ST. Owned by Boston Athletic Association; insurance, $110,000; occupied by Boston Athletic Association, as club-house; insurance, $30,000; originated in basement; cause, spontaneous combustion.

Thursday, 30th, 8–10 A.M. Box 424.

TUFTS AND VINE STS. Owned by St Catherine Parish; occupied by St. Catherine Parish, as church; originated in church; cause, curtain igniting from gas-jet.

Thursday, 30th, 8–40 P.M. Still.

HANOVER ST. Cause, electric motor igniting car of West End R.R.

Friday, 31st, 2–30 A.M. Box 62.

NOS. 128 AND 130 ELIOT ST. Owned by Hollingsworth estate; loss, $25; insurance, $20,000; occupied by A. H. Washburn, as dwelling; insurance, $5,000; originated on 1st floor; cause, careless use of matches in sawdust.

APRIL.

Saturday, 1st, 2–40½ A.M. Box 249.

NO. 66 CHESTNUT AVE. Owned by J. McDougall; loss, $60; insurance, $6,000; occupied by W. R. Matthews, as dwelling; insurance, $1,000; originated on 1st floor; cause unknown.

Saturday, 1st, 3–50 P.M. Box 563.

TEMPLE ST. Cause, brush fire; needless.

Saturday, 1st, 8–35 P.M. Box 72.

NO. 1054 WASHINGTON ST. Owned by E. D. Morse; loss, $75; insurance, $10,000; occupied by M. S. Woolstoncraft, as dwelling; loss, $111; insurance, $5,000; originated on 4th floor; cause, gas-jet igniting curtain.

Sunday, 2d, 3–47 A.M. Still.

No. 39 MAVERICK SQ. Owned by J. Foltz; loss, $50; insurance, $4,000; occupied by L. D. Bemis, as dwelling; loss, $25; originated on 3d floor; cause, upsetting kerosene lamp.

Sunday, 2d, 6–48 A.M. Box 92.

No. 116 HUNTINGTON AVE. Owned by Wildes estate; loss, $50; insurance, $20,000; occupied by Orra Paige, as dwelling; loss, $15; insurance, $9,000; originated on 1st floor; cause, explosion of kerosene stove.

Sunday, 2d, 11–45 A.M. Box 647.

No. 98 CONDOR ST. Owned by Boston and Lockport Block Co.; loss, $957; insurance, $3,500; occupied by Boston and Lockport Block Co., as factory; loss, $4,900; insurance, $19,000; originated on 2d floor; cause, spontaneous combustion.

Sunday, 2d, 3–27 P.M. Box 528.

WALKHILL ST. Grass fire; cause unknown.

Sunday, 2d, 4–33 P.M. Box 451.

No. 82 MEDFORD ST. Owned by M. J. Moore; insurance, $4,000; occupied by J. Collins *et al.*, as dwelling; loss, $10; originated on 2d floor; cause, breaking bottle of naphtha over stove.

Remarks. — Mr. and Mrs. Collins were severely burned, the latter dying from injuries the next day.

Sunday, 2d, 6–39 P.M. Box 544.

WELD ST.

Remarks. — Fire in pile of cord wood owned by J. A. Whittemore; damage, $25; cause unknown.

Sunday, 2d, 7–08 P.M. Still.

No. 6 CRESCENT PL. Owned by P. Leventhal; loss, $25; insurance, $7,000; occupied by D. Kallen, as dwelling; loss, $15; originated on 4th floor; cause unknown.

Sunday, 2d, 9–05 P.M. Still.

WARREN ST. Cause, electric motor igniting car of West End R.R.

Sunday, 2d, 10–05 P.M. Box 527.

No. 73 JAMAICA ST. Owned by J. J. Dolan; loss, $25; hen-house; originated on 1st floor; cause unknown.

Sunday, 2d, 10–20 P.M. Box 14.

No. 65 EASTERN AVE. Owned by M. E. Crotty; loss, $127; insurance, $4,000; occupied by J. Robinson, as dwelling; loss, $50; originated on 2d floor; cause, upsetting kerosene lamp.

Monday, 3d, 4–16 P.M. Box 21.

Needless alarm.

Monday, 3d, 11–08 P.M. Box 917.

No. 1262 DORCHESTER AVE. Owned by L. Jones; insurance, $4,000; occupied by J. Hannahan, as dwelling; loss, $5; originated on roof; cause, sparks from chimney.

Tuesday, 4th, 1-15 P.M. Box 873.

False alarm.

Wednesday, 5th, 8-45 A.M. Still.

O. C. R.R. TRACK; cause, sparks from locomotive igniting pile of sleepers; damage, $25.

Wednesday, 5th, 11-10 A.M. Still.

No. 127 PARIS ST. Owned by J. English heirs; loss, $58; insurance, $2,500; occupied by J. English, as dwelling; loss, $45; insurance, $1,000; originated on 1st floor; cause, ignition of oil stove.

Wednesday, 5th, 8-20 A.M. Box 726.

No. 388 FEDERAL ST. Owned by Boston Fire Brick Company; insurance, $39,040; occupied by Boston Fire Brick Company, as storehouse; originated on 1st floor; cause unknown.

Wednesday, 5th, 9-35 P.M. Still.

No. 338 WASHINGTON ST. Owned by E. D. Sohier heirs; loss, $15; insurance, $3,000; occupied by E. F. Perry, as periodicals; insurance, $500; originated on 1st floor; cause, lamp igniting ceiling.

Thursday, 6th, 5-27 A.M. Box 83.

Cause, smoke mistaken for fire; needless.

Thursday, 6th, 6-51 P.M. Box 126.

No. 387 W. BROADWAY. Owned by F. B. James; loss, $5; insurance, $1,800; occupied by H. J. Poland, as restaurant; loss, $33; insurance, $1,500; originated on 1st floor; cause, breaking kerosene lamp.

Thursday, 6th, 7-45 P.M. Still.

No. 9 WINDSOR ST. Owned by B. F. Parker; insurance, $2,706; occupied by A. Abrams, as dwelling; insurance, $3,000; originated on 2d floor; cause unknown.

Thursday, 6th, 8-35 P.M. Still.

No. 58 ORLEANS ST. Owned by J. O'Connor; cause, burning shavings in furnace; needless.

Friday, 7th, 4-29 A.M. Box 98.

No. 212 CAMDEN ST. Owned by National Cordage Company; occupied by National Cordage Company, as factory; originated on 1st floor; cause, friction of machinery.

Friday, 7th, 3-44 P.M. Box 634.

No. 156 MERIDIAN ST. Owned by M. D. Blackington; insurance, $5,000; occupied by East Boston Furniture Company, as salesrooms; insurance, $17,000; originated on 1st floor; cause, ignition of kerosene stove.

Saturday, 8th, 2-30 P.M. Still.

No. 17 WALNUT PL. Owned by C. P. and C. D. Flagg; insurance, $4,000; occupied by Wm. Gorham, as dwelling; loss, $50; originated on 2d floor; cause, children and matches.

Saturday, 8th, 8-56 P.M. Box 57.

No. 117 ALBANY ST. Owned by I. Trafton; loss, $48; insurance, $2,000; occupied by D. McCarthy, as stable; originated in shed; cause, careless use of pipe in bedding.

Sunday, 9th, 3-50 A.M. Still.

No. 61 MAVERICK SQ. Owned by M. Dyer heirs; insurance, $3,000; occupied by M. Coffey *et al.*, as dwelling; insurance, $1,000; originated on 2d floor; cause, breaking kerosene lamp.
Remarks. — J. F. Feeley was slightly burned.

Sunday, 9th, 11-10 A.M. Still.

CENTRE PL. Cause, soot in chimney burning.

Monday, 10th, 0-28 A.M. Box 15.

No. 222 COMMERCIAL ST. Owned by Lewis Wharf Corporation; insurance, $4,000; occupied by S. Sullivan, as dwelling; loss, $10; originated on 2d floor; cause, smoking in bed.

Tuesday, 11th, 0-44 P.M. Still.

LONGWOOD AVE. Cause, sparks from locomotive igniting grass.

Tuesday, 11th, 5-15 P.M. Still.

NEPONSET AVE. Grass fire; cause unknown.

Tuesday, 11th, 10-30 P.M. Still.

No. 276 COMMONWEALTH AVE. Cause, soot in chimney burning.

Tuesday, 11th, 10-51 P.M. Box 6.

No. 112 LEVERETT ST. Owned by J. J. O'Day; loss, $564; insurance, $3,000; occupied by J. H. Ricker, as provisions; loss, $400; insurance, $1,500; occupied by E. B. Thornton, as bakery; loss, $23; insurance, $1,000; originated on 1st floor; cause unknown.

Wednesday, 12th, 9-10 A.M. Still.

No. 377 BEACON ST. Cause, soot in chimney burning.

Wednesday, 12th, 10-06 A.M. Box 551.

PARK ST. Cause, bonfire; burning brush.

Wednesday, 12th, 11-31 A.M. Box 462.

No 14 DUNSTABLE ST. Owned by Winchester heirs; loss, $42; insurance, $6,000; occupied by J. G. Crawford *et al.*, as machinist, etc.; insurance, $9,000; originated on outside of building; cause unknown.

Wednesday, 12th, 11-35 A.M. Still.

No. 103 MORELAND ST. Owned by E. Sargent; loss, $17; insurance, $6,000; occupied by J. Arnold, as dwelling; loss, $34; insurance, $2,000; originated on 3d floor; cause, children and matches.

Wednesday, 12th, 4-35 P.M. Box 563.

LAGRANGE ST. Cause, sparks from locomotive igniting rubbish.

Wednesday, 12th, 8–58 P.M. Box 85.

No. 9 PAUL ST. Owned by H. G. Boles; loss, $10; insurance, $12,000; occupied by T. Jennings *et al.*, as dwelling; loss, $75; originated on 2d floor; cause, breaking kerosene lamp.

Wednesday, 12th, 9–12 P.M. Box 543.

LAGRANGE ST. Brush fire in the woods; cause unknown.

Wednesday, 12th, 10–30 P.M. Box 613.

SIMPSON'S WHARF, MARGINAL ST.
Remarks. — Fire on board the Schooner "Jacob Reed." Damage, $250; insurance, $4,000; cause unknown.

Thursday, 13th, 0–42 A.M. Box 126.

No. 339 BROADWAY. Owned by Wm. Sohier heirs; loss, $1,008; insurance, $20,000; occupied by J. Podolski, as tailor; loss, $680; insurance, $2,000; occupied by Murray & Irwin, as billiards; loss, $142; insurance, $1,500; originated on 3d floor; cause unknown.

Thursday, 13th, 8–44 A.M. Box 46.

No. 103 MILK ST. Cause, explosion of chemicals.
Remarks. — R. B. Griffin was fatally burned by the explosion.

Thursday, 13th, 11–44 A.M. Still.

No. 101 COTTAGE ST. Cause, burning of meat on stove.

Thursday, 13th, 0–21 P.M. Box 129.

No. 294 DORCHESTER AVE. Cause, smoke from stove mistaken for fire.

Thursday, 13th, 6–32 P.M. Still.

No. 35 HARTFORD ST. Needless; no fire.

Friday, 14th, 11–38 A.M. Still.

No. 6 FELLOWS COURT. Owned by E. Gilbreath; insurance, $3,000; occupied by J. Cantello, as dwelling; originated on 2d floor; cause, defective flue.

Friday, 14th, 3–30 P.M. Still.

BEECH AND WASHINGTON STS. Brush fire; cause unknown.

Friday, 14th, 5–43 P.M. Still.

No. 2 ERIE PL. Owned by M. A. Wilson; loss, $25; occupied by M. A. Wilson, as dwelling; originated on 1st floor; cause, ignition of gasoline stove.

Friday, 14th, 6–25 P.M. Box 92.

No. 687 BOYLSTON ST. Owned by H. B. Williams; loss, $1,325; insurance, $100,000; occupied by E. Tompkins *et al.*, as dwelling; loss, $4,986; insurance, $60,500: originated on 4th floor; cause, careless use of taper, igniting curtain.

Friday, 14th, 9–15 P.M. Box 16.

MERCHANTS ROW AND CHATHAM ST. Owned by Thorndike estate; loss, $1.797; insurance, $10,000; occupied by C. E. Hodgkins, Jr., as dining-rooms; loss, $646; insurance, $8,000; occupied by D. W. & J. L. Ellis, as butter and eggs; loss, $738; insurance, $10,000; occupied by J. L. Dolbeare, as cigars, etc.; loss, $13; insurance, $400; occupied by Cushing & Currier, as produce; loss, $95; insurance, $1,600; originated on 4th floor; cause unknown.

Saturday, 15th, 6–40 A.M. Box 244.

No. 76 CIRCUIT ST. Owned by P. Leach; loss, $90; insurance, $3,000; occupied by G. H. Newton, as dwelling; loss, $200; originated on 2d floor; cause unknown.

Saturday, 15th, 8–31 P.M. Box 4.

No. 124 CHARLESTOWN ST. Owned by A. Curran; loss, $24; insurance, $3,000; occupied by A. Curran, as dwelling; originated on 4th floor; cause, careless use of lamp.

Monday, 17th, 1–25 A.M. Box 38.

CENTRAL WHARF. Owned by Merchants and Miners Transportation Company; insurance, $150,000.

Remarks. — Fire on board the Steamship "Chatham," caused by spontaneous combustion in cotton.

Monday, 17th, 3–50 A.M. Still.

ALLBRIGHT COURT. Owned by J. Allbright; loss, $10; insurance, $1.000; occupied by E. T. Pond, as stable; loss, $10; insurance, $800; originated on 1st floor; cause, defective boiler-setting igniting flooring.

Tuesday, 18th, 9–10 P.M. Still.

No. 11 HARWICH ST. Owned by French & Son, agents; insurance, $4,000; occupied by W. J. Look, as dwelling; loss, $5; originated on 1st floor; cause, upsetting kerosene lamp.

Wednesday, 19th, 6–02 A.M. Still.

NORFOLK ST. Cause, sparks from locomotive igniting manure pile.

Wednesday, 19th, 7–53, 8–03 A.M. Boxes 417 and 411.

AUSTIN ST. Owned by State of Massachusetts; loss, $1,000; occupied by State of Massachusetts, as prison; loss, $1,400; originated on 2d floor of workshops; cause unknown.

Wednesday, 19th, 1–50 P.M. Still.

CHURCH AND WINTER STS. Owned by Robinson heirs; loss, $5; insurance, $2,500; occupied by J. Cleary, as dwelling; originated on roof; cause, sparks from chimney.

Wednesday, 19th, 8–32 P.M. Box 221.

False alarm.

Wednesday, 19th, 9–04 P.M. Box 455.

No. 100 ARLINGTON AVE. Owned by J. T. and F. O. Reed; insurance, $2,500; occupied by N. E. Carving Company, as factory; insurance, $15,100; originated in boiler-room; cause, sparks from boiler furnace.

Thursday, 20th, 0–18 A.M. Box 527.

No. 1 ST. JOSEPH ST. Owned by Thos. McGuinness; loss, $90; insurance, $3,500; occupied by C. O. Leary *et al.*, as dwelling; loss, $50; insurance, $500; originated on 1st floor; cause, supposed mice and matches.

Thursday, 20th, 10–45 A.M. Box 421.

No. 29 JOINER ST. Owned by M. E. Downer; loss, $10; insurance, $2,000; occupied by Ellen Dunn, as dwelling; originated on roof; cause, sparks from chimney.

Thursday, 20th, 11–30 A.M. Still.

ORLEANS ST. Cause, sparks from locomotive igniting manure pile.

Thursday 20th, 0–22 P.M., Box 265.

No. 257 WARREN ST. Owned by Geo. Hinman; loss, $250; insurance, $5,000; occupied by Geo. Hinman, as dwelling; loss, $374; insurance, $1,500; originated on 3d floor; cause, careless use of lamp.

Thursday, 20th, 5–50 P.M. Still.

NOS. 27 AND 29 PURCHASE ST. Automatic alarm; cause unknown.

Friday, 21st, 3–12 A.M. Box 18.

No. 51 PORTLAND ST. Owned by M. D. Kimball; loss, $782; insurance, $27,350; occupied by Jenkins Bros. & Co., as coffin supplies; loss, $3,215; insurance, $32,100; occupied by Casino Art Co., as office; loss, $600; insurance, $2,250; occupied by Hub Protective Co., as salesroom; loss, $30; insurance, $3,500; originated on 5th floor; cause, electric wires.

Friday, 21st, 8–41 A.M. Box 241.

No. 10 MORELAND ST. Owned by A. R. Wentworth; occupied by G. S. Harris, as dwelling; cause, soot in chimney burning.

Friday, 21st, 10 A.M. Still.

No. 517 MAIN ST. Owned by Cunningham heirs; insurance, $3,000; occupied by Charlestown Stove Company, as stoves, etc.; insurance, $3,000; originated on 1st floor; cause, overheated stove-pipe.

Friday, 21st, 3–50 P.M. Still.

HARRISON AVE. Cause, electric wires in West End Power House.

Friday, 21st, 9–36 P.M. Still.

No. 2 CEDAR ST. Owned by A. White; loss, $26; insurance, $3,000; occupied by A. White, as dwelling; loss, $98; insurance, $2,500; originated on 2d floor; cause, careless use of lamp.

Friday, 21st, 10–08 P.M. Box 68.

No. 5 PLYMPTON ST. Owned by M. Welch; occupied by Baldwin & Emerson, as stable; originated on 1st floor; cause, explosion of kerosene stove.

Remarks. — Frank Reynolds was severely burned about the limbs.

Saturday, 22d, 1-20 A.M. Box 49.

Nos. 43 to 47 Franklin st. Owned by J. Simmons estate; insurance, $200,000; occupied by Everett Press Company, as printers; loss, $73; insurance, $23,000; originated on 4th floor; cause, supposed rats and matches.

Saturday, 22d, 7-34 P.M. Box 52.

No. 129 Summer st. Owned by Lawrence heirs; loss, $262; insurance, $22,000; occupied by Weiss & Schmidt, as caps, etc.; loss, $100; insurance, $3,000; originated on 5th floor; cause, hot ashes in wooden receptacle.

Saturday, 22d, 9-19 P.M. Box 818.

Cottage Farm station. Cause, sparks from pipe igniting waste in round-house.

Saturday, 22d, 11 P.M. Still.

No. 32 Shepard st. Owned by J. Welch heirs; loss, $75; insurance, $1,500; occupied by Mrs. Dungan, as dwelling; originated on 1st floor; cause, careless use of pipe.

Sunday, 23d, 9-05 P.M. Still.

No. 34 Main st. Cause, smoke from chimney mistaken for fire.

Monday, 24th, 3-43 P.M. Box 6.

No. 124 Leverett st. Cause, smoke from chimney mistaken for fire.

Monday, 24th, 9-26 P.M. Box 126.

No. 374 Broadway. Owned by E. H. Brainard; occupied by J. H. Gavin, as apothecary; loss, $15; originated on 1st floor; cause, upsetting kerosene lamp.

Monday, 24th, 10-04 P.M. Box 142.

No. 68 Dove st. Owned by J. Coughlin; loss, $20; insurance, $1,400; occupied by R. Frayer, as dwelling; loss, $5; originated on 2d floor; cause, upsetting kerosene lamp.

Tuesday, 25th, 7-29 P.M. Box 41.

No. 364 Washington st. Owned by Ticknor estate; insurance, $30,000; occupied by G. W. Davis, as gold-beater; insurance, $1,500; originated in basement; cause, friction of machinery.

Wednesday, 26th, 0-12, 0-19 P.M. Box 419.

Rutherford ave. Owned by Boston & Maine Railroad; loss, $3,682; insurance, $8,000; occupied by Hosmer, Robinson, *et al.*, as hay storage; loss, $7,105; insurance, $32,150; originated in hay sheds; extended to freight cars on tracks; cause unknown.

Wednesday, 26th, 10-42 P.M. Box 12.

No. 153 Endicott st. Owned by M. and A. Massele; loss, $50; insurance, $6,000; occupied by R. Vazella. as grocery; loss, $141; insurance, $1,000; originated on 1st floor; cause unknown.

Thursday, 27th, 6-05 P.M. Box 62.

No. 207 Eliot st. Owned by J. Stevenson; cause, careless use of lamp igniting alcohol.

Thursday, 27th, 6–32 P.M. Box 631.

No. 41 SUMNER ST. Owned by J. Morrison; insurance, $2,450; occupied by Boston Caulkers Association, as club-room; originated on 2d floor; cause, pipe igniting clothing.

Thursday, 27th, 7–47 P.M. Box 127.

Cause, boy named Wm. Sweeney, aged 14 years, playing with trolley wire; killed by electric shock; needless alarm.

Friday, 28th, 11–35 A.M. Still.

No. 29 FORT AVE. Owned by M. J. Scanlan; loss, $96; insurance, $6,000; cause, sparks from pipe igniting turpentine.

Friday, 28th, 1–35 P.M. Box 416.

Nos. 77 AND 79 MAIN ST. Owned by Wm. Hunt heirs; insurance, $3,000; occupied by Brintnall & Osgood, as paper-hangings; loss, $189; insurance, $3,500; originated on 1st floor; cause, careless use of matches.

Friday, 28th, 4–45 P.M. Still.

No. 1198 HARRISON AVE. Owned by O. H. Davenport; insurance, $2,000; occupied by Wm. Boyd, as plumber; loss, $10; insurance, $200; originated on 1st floor; cause, careless use of candle.

Friday, 28th, 6–44, 6–47 P.M. Box 96.

Nos. 2, 3, 4, 7 AND 8 STANHOPE ST. 3 Owned by Prov. Div. O. C. R.R.; loss, $3,630; insurance, $10,000; occupied by Prov. Div. O. C. R.R. freight sheds; loss, $1,017; insurance, $40,000; 2 and 4 owned by F. H. Peabody; loss, $135; insurance, $9,000; occupied by F. H. Peabody as a stable; 7 occupied by W. A. Potter, heirs; loss, $67; insurance, $9,000; occupied by A. G. Weeks, as a stable; 8 owned by R. E. Robbins; loss, $38; insurance, $5,000; occupied by R. E. Robbins as a stable; originated on 1st floor; cause unknown.

Saturday, 29th, 3–56 P.M. Box 113.

WEST FIRST ST., NEAR A. Owned by Downer Kerosene Oil Company; loss, $2,500; occupied by West & Jenny, as camphor works; loss, $967; insurance, $6,000; originated on 1st floor; cause, explosion of chemicals.

Remarks. — Thomas W. Hanley and Geo. Sike were severely injured and the building completely demolished by the explosion.

Saturday, 29th, 9–55 P.M. Still.

No. 318 SUMNER ST. Owned by C. J. Brown; loss, $27; insurance, $3,000; occupied by J. E. McIntire, as dwelling; loss, $75; insurance, $500; originated on 1st floor; cause unknown.

Saturday, 29th, 10–55 P.M. Box 133.

Cause, false alarm.

Sunday, 30th, 9–59 A.M. Box 129.

No. 34 SIXTH ST. Cause, smoke from stove mistaken for fire.

Sunday, 30th, 11–25 A.M. Box 528.

No. 3851 WASHINGTON ST. Cause, soot in chimney burning.

Sunday, 30th, 4–17 P.M. Box 23.

No. 3 BOWDOIN SQ. Owned by M. M. Cunniff; loss, $510; insurance, $75,000; occupied by Cobb, Bates & Yerxa, as grocery; loss, $1,075; insurance, $16,800; originated on 1st floor; cause unknown.

MAY.

Monday, 1st, 11-06 A.M. Still.

No. 51 OLIVER ST. Cause, candle igniting cotton waste. No damage.

Tuesday, 2d, 2-14 A.M. Box 642.

No. 319 SARATOGA ST. Owned by H. Weston; loss, $160; insurance, $2,000; occupied by M. C. George, as dwelling; loss, $108; insurance, $500; originated in basement; cause unknown.

Tuesday, 2d, 7-50 P.M. Still.

No. 71 TRENTON ST. Cause, smoke from chimney mistaken for fire.

Wednesday, 3d, 1-20 P.M. Box 259.

No. 227 CENTRE ST. Owned by S. P. Fenno; loss, $350; insurance, $750; occupied by J. P. Fenno *et al.*, as hay-shed, etc.; loss, $650; insurance, $1,000; originated on 1st floor; cause, incendiary.

Thursday, 4th, 8-40 A.M. Still.

No. 607 WASHINGTON ST. Cause, electric wires igniting woodwork. No damage.

Thursday, 4th, 9-32 A.M. Box 435.

MEDFORD ST.
Remarks. — This alarm was occasioned by a landslide on the new park lands, which was supposed to have buried some children, and was given to summon help to rescue them; it was needless.

Thursday, 4th, 10-49 A M. Box 113.

N. Y. & N. E. RAILROAD. Cause, overheated stove in caboose car No. 16; damage, $75.

Thursday, 4th, 3-18 P.M. Still.

NOS. 45 AND 47 FEDERAL ST. Cause, smoke from chimney mistaken for fire.

Friday, 5th, 6-51 P.M. Box 24.

No. 12 CHAMBERS ST. Cause, explosion of kerosene lamp; no damage.

Friday, 5th, 7 P.M. Still.

No. 101 LOWELL ST. Cause, ignition of kerosene stove; no damage.

Friday, 5th, 7-50 P.M. Still.

COR. OF I AND THIRD STS. Owned by A. J. Brennan; loss, $5; occupied by A. J. Brennan, as out-building; originated on 1st floor; cause, incendiary.

Saturday, 6th, 7-24 P.M. Still.

No. 11 ONEIDA ST. Cause, explosion of lantern; no damage.

Saturday, 6th, 10 P.M. Still.

No. 23 LINDEN PARK ST. Owned by W. A. Gaston; insurance, $3,000; occupied by R. Doolan, as dwelling; loss, $15; originated on 2d floor; cause, breaking kerosene lamp.

Sunday, 7th, 4–50 A.M. Box 142.

NOS. 336 AND 338 WEST FIFTH ST. Owned by I. L. Moore; loss, $28; insurance, $2,000; occupied by Royal Compound Coffee Company, as factory; loss, $10; originated on 1st floor; cause, sparks from coffee-roaster.

Sunday, 7th, 6–51 P.M. Still.

NO. 407 ATLANTIC AVE. Cause, smoke mistaken for fire.

Sunday, 7th, 9–07, 9–18 P.M. Box 47.

NOS. 163 TO 167 OLIVER ST. Owned by Wm. B. Crocker; loss, $1,389; insurance, $30,000; occupied by Electrical Forging Company, as factory; insurance, $31,000; occupied by Standard Chemical Company, as laboratory; insurance, $2,000; occupied by Wheelman Company, as printing; loss, $1,219; insurance, $14,300; originated on 3d floor; cause unknown.

NOS. 165 AND 167 HIGH ST. Owned by E. F. Billings; loss, $50; insurance, $28,000; occupied by Billings, Clapp & Co., as chemicals; insurance, $75,000.

NOS. 129 TO 139 OLIVER ST. Owned by E. J. Brown; loss, $123; insurance, $12,000.

NOS. 155 AND 157 HIGH ST. Owned by Franklin Fuller; insurance, $11,000; occupied by Bradley, Hastings & Co., as hardware; insurance, $60,000.

Monday, 8th, 3–44, 3–49, 4–06 A.M. Box 47.

NOS. 161 AND 163 HIGH ST. Owned by C. B. Chase; loss, $6,789; insurance, $18,000; occupied by Wm. Jessop & Son, as iron and steel; insurance, $57,000; occupied by Kingsbury & Davis, as paper boxes; insurance, $1,200; occupied by Ellis Lubricator Company, as oil cups; insurance, $6,000; occupied by Massachusetts Electrical Engineering Company, as machine-shop; loss, $3,342; insurance, $6,250; occupied by Shawmut Fuse Company, as fuse wires; insurance, $3,000; originated on 2d floor; cause, electric wires igniting woodwork.

Monday, 8th. 8–37 A.M. Still.

NO. 279 COLUMBUS AVE. Cause, overheated gasoline stove; no damage.

Monday, 8th, 4–43 P.M. Box 996.

NORFOLK ST. Brush fire; cause unknown.

Monday, 8th, 5–40 P.M. Still.

NO. 76 DOVER ST. Owned by L. Wyzanski; loss, $48; insurance, $6,000; occupied by M. E. Phipps, as dwelling; originated on 3d floor; cause, plumber's pot igniting woodwork.

Tuesday, 9th, 11–51 A.M. Box 43.

NO. 523 WASHINGTON ST. Cause, match thrown in waste-basket; no damage.

Tuesday, 9th, 7–14 P.M. Still.

NO. 667 BENNINGTON ST. Cause, defect in chimney; no damage.

Tuesday, 9th, 7–40 P.M. Box 6.

NO. 84 LEVERETT ST. Owned by C. Berry & Company; insurance, $1,000; occupied by C. Berry & Company, as liquors; insurance, $2,000; originated on 1st floor; cause, gas-jet igniting woodwork.

Tuesday, 9th, 10–57 P.M. Box 34.

STATE HOUSE EXTENSION, DERNE ST. Cause, incendiary; no damage.

Tuesday, 9th, 11–55 P.M. Still.

No. 669 EAST BROADWAY. Owned by E. J. McKenney; loss, $5; insurance, $2,500; occupied by J. P. Kaulbach, as periodicals; loss, $3; insurance, $450; originated on 1st floor; cause, explosion of kerosene lamp.

Wednesday, 10th, 9 A.M. Box 4.

No. 6 ENDICOTT COURT. Cause, soot in chimney burning; no damage.

Wednesday, 10th, 1–40 P.M. Box 419.

Cause, bonfire of rubbish in prison yard.

Wednesday, 10th, 7–13 P.M. Box 532.

MT. HOPE CEMETERY. Burning of pile of rubbish; cause unknown.

Wednesday, 10th, 11–58 P.M. Box 28.

Nos. 35 TO 49 NORTH ST. Owned by J. P. Squires estate; loss, $424; insurance, $40,000; occupied by Lyon & Sworoski *et al.*, as tailors, etc.; loss, $1,083; insurance, $11,900; originated on 3d floor; cause, supposed mice and matches.

Thursday, 11th, 1–35 A.M. Box 217.

No. 220 RUGGLES ST. Owned by Hughes & Clark; loss, $50; insurance, $1,800; occupied by J. M. Hunter, as dwelling; loss, $61; insurance, $1,000; originated on 1st floor; cause, supposed rats and matches.

Thursday, 11th, 2 A.M. Still.

WEST THIRD ST. Owned by T. K. Neal; loss, $10; occupied by T. K. Neal, as stable; originated in manure pit; cause, careless use of matches.

Thursday, 11th, 4–53 P.M. Still.

No. 26 TRENTON ST. Owned by G. W. Bennett; loss, $25; insurance, $300; occupied by D. E. Crowell, as stable; originated on 1st floor; cause, children and matches.

Thursday, 11th, 5–01 P.M. Box 249.

No. 49 WARD ST. Cause, children and matches; no damage.

Thursday, 11th, 8–40 P.M. Box 47.

Nos. 389 AND 391 ATLANTIC AVE. Owned by J. O'Connor; loss, $200; insurance, $400; No. 397 owned by J. W. Hildreth; loss, $117; insurance, $3,500; occupied by O'Connor Bros., as junk-store; loss, $775; insurance, $75; originated on 3d floor, extended to adjoining building, No. 397, slightly; cause unknown.

Thursday, 11th, 9–32 P.M. Box 242.

No. 18 BLUE HILL AVE. Cause, gas-jet igniting curtain; no damage.

Friday, 12th, 8–45 A.M. Box 13.

No. 104 RICHMOND ST. Cause, defect in chimney; no damage.

Friday, 12th, 9–05 A.M. Still.

WASHINGTON ST. Cause, electric wires igniting cut-out box of West End R.R.

Saturday, 13th, 2–10 A.M. Box 416.

NOS. 70 TO 74 MAIN ST. Owned by Little heirs; loss, $272; insurance, $7,000; occupied by J. J. Callahan, as printer; loss, $2,327; insurance, $2,000; occupied by M. E. Nichols, as dry goods; loss, $375; insurance, $4,500; originated on 2d floor; cause unknown.

Saturday, 13th, 8–54 A.M. Box 15.

NO. 108 FULTON ST. Cause, careless use of matches; no damage.

Saturday, 13th, 11–52 A.M. Still.

NO. 500 HARRISON AVE. Cause, burning paint from pots; needless.

Sunday, 14th, 6–41 A.M. Box 561.

COREY AND GARDEN STS. Cause, soot in chimney burning; no damage.

Sunday, 14th, 6–59 A.M. Box 54.

NO. 90 ESSEX ST. Owned by W. J. Wilson; loss, $531; insurance, $7,000; occupied by G. W. Capen, as salesroom; loss, $1,500; insurance, $2,500; occupied by McGuiness & Co., as liquors; loss, $224; insurance, $6,000; occupied by Boston Coat and Apron Supply Company, as workrooms; loss, $25; insurance, $500; originated on 2d floor; cause unknown

Sunday, 14th, 11–41 A.M. Box 254.

NO. 3 ALBERT ST. Owned by C. W. Norris; insurance, $1,500; occupied by T. Muldoon, as dwelling; insurance, $600; originated on 2d floor; cause, overheated stove igniting woodbox.

Sunday, 14th, 12 M. Still.

NO. 476 SHAWMUT AVE. Needless alarm.

Sunday, 14th, 4–39 P.M. Box 52.

NO. 39 KINGSTON ST. Owned by Z. A. Willard; loss, $428; insurance, $20,000; occupied by W. B. Witherell Company, as woollens; loss, $410; insurance, $13,250; occupied by Day, Callaghan & Co., as ladies' cloaks; loss, $1,050; insurance, $10,000; occupied by Gowing, Sawyer & Co.; loss, $231; insurance, $26,000; originated on 3d floor; cause, ignition of sawdust in wooden spittoon.

Sunday, 14th, 6–20 P.M. Still.

NO. 408 FEDERAL ST. Cause, spontaneous combustion in rubbish; no damage.

Sunday, 14th, 11–59 P.M. Box 431.

NO. 9 RUSSELL ST. Cause, smoke from chimney; no damage.

Monday, 15th, 3–50 P.M. Box 212.

NO. 10 PERCH ST. Owned by E. K. Jewett; occupied by G. W. Fudge, as dwelling; loss, $10; originated on 3d floor; cause, children and matches.

Tuesday, 16th, 8–56 A.M. Box 12.

No. 2 Douglass court. Owned by J. Longmia; insurance, $2,500; occupied by C. Longmia, as dwelling; loss, $5; originated on 1st floor; cause, clothes igniting from stove.

Tuesday, 16th, 8–36 P.M. Box 425.

No. 66 Monument st. Owned by M. J. Kelley; loss, $35; insurance, $2,700; occupied by L. T. Barnard, as dwelling; loss, $200; originated on 2d floor; cause, kerosene-lamp explosion.

Tuesday, 16th, 9–05 P.M. Box 469.

Bow and Harvard sts. Owned by J. B. Clapp & Son; insurance, $12,000; occupied by C. L. Burns, as store and dwelling; insurance, $700; originated in basement; cause, explosion of kerosene lamp.

Wednesday, 17th, 3–16 A.M. Box 5.

No. 22 Lancaster st. Cause, breaking kerosene lamp; no damage.

Wednesday, 17th, 3–30 A.M. Still.

No. 104 East Newton st. Cause, slacking of lime owned by H. J. Adams; damage, $5.

Wednesday, 17th, 5–47 A.M. Still.

Cambridge st. Owned by Samuel Leonard; loss, $75; occupied by Mrs. A. Pettee *et al.*, as dwelling; loss, $50; insurance, $500; originated on 1st floor; cause, careless use of matches.

Wednesday, 17th, 7–18 A.M. Box 53.

No. 611 Washington st. Owned by Parker heirs; loss, $362; insurance, $135,000; occupied by C. G. Whitcomb, as jeweller; loss, $25; originated on 6th floor; cause, electric wires.

Thursday, 18th, 3–28 A.M. Box 36.

No. 286 Washington st. Cause, light mistaken for fire.

Thursday, 18th, 9–10 A.M. Still.

No. 7 Billerica st. Cause, molasses boiling over on stove; no damage.

Friday, 19th, 0–01 A.M. Box 835.

No. 638 Cambridge st. Owned by Samuel Leonard; loss, $100; occupied by A. Pattee *et al.*, as dwelling; loss, $85; insurance, $500; originated on 2d floor; cause, supposed incendiary.

Friday, 19th, 4–39 P.M. Box 241.

Nos. 185 to 191 Warren st. Owned by Hugh Nawn heirs; loss, $145; insurance, $6,000; occupied by E. W. King, as furniture; loss, $52; insurance, $700; occupied by J. Philbrick, as carpenter; loss, $25; insurance, $300; occupied by A. M. Strange, as painter; loss, $19; insurance, $300; originated on 1st floor of No. 185, extended to adjoining buildings; cause unknown.

Friday, 19th, 9–19 P.M. Box 35.

No. 37 Tremont st. Owned by Hammond estate; loss, $180; insurance, $18,000; occupied by D. Kenison & Son, as chiropodists; loss, $66; insurance, $500; occupied by A. A. Mills, as art store; loss, $365; insurance, $3,500; originated on 2d floor; cause, supposed rats and matches.

Friday, 19th, 10-38 P.M. Box 121.

No. 122 WEST FIRST ST. Owned by Downer Kerosene Company; loss, $1,500; insurance, $500; occupied by Blaisdell Bros., as stable, etc.: loss, $4,021; insurance, $6,250; originated on 1st floor; cause, boiling over of oil on stove.

Saturday, 20th, 8-59 A.M. Box 945.

No. 374 ASHMONT ST. Cause, ignition of manure pile; damage, $10.

Saturday, 20th, 3 P M. Still.

COTTAGE ST. Brush fire; cause unknown.

Saturday, 20th, 8-39 P.M. Box 46.

Nos. 36 TO 42 OLIVER ST. Owned by M. Kimball estate; loss, $193; insurance, $40,000; occupied by E. Smith & Co., as foundry; loss, $75; insurance, $7,000; occupied by W. J. Windram & Sons, as slipper patterns; loss, $12; insurance, $6,500; occupied by McIndoe Brothers, as printers; loss, $35; insurance, $13,500; originated on 4th floor; cause, overheated smelting-furnace.

Sunday, 21st, 7-13 A.M. Still.

No. 175 ATHENS ST. Cause, explosion of gasoline stove; no damage.

Sunday, 21st, 9-47 A.M. Box 66.

No. 52 MIDDLESEX ST. Cause, smoke from stove mistaken for fire.

Sunday, 21st, 11-44 A.M. Box 541.

MT. HOPE CEMETERY. Cause, brush-fire igniting fence; damage, $50.

Sunday, 21st, 3-55 P.M. Still.

NEPONSET-RIVER BRIDGE.
Remarks. — This fire was on the Quincy side of bridge. Engine No. 20 was called on a still, but an alarm was subsequently given in Quincy, when Engine No. 20 returned to quarters.

Sunday, 21st, 7-55 P.M. Still.

COLLINS ST. Brush fire; cause unknown.

Sunday, 21st, 8-08 P.M. Box 78.

No. 74 EAST NEWTON ST. Owned by W. A. England; loss, $15; insurance, $7,000; occupied by Harris Stocker, as dwelling; loss, $41; insurance, $1,000; originated on 2d floor; cause, gas-jet igniting curtain.

Sunday, 21st, 8-35 P.M. Still.

No. 102 WEST NEWTON ST. Owned by E. Davis; occupied by W. H. Pratt, as dwelling; loss, $50; insurance, $2,000; originated on 2d floor; cause, gas-jet igniting curtain.

Monday, 22d, 4-53 P.M. Still.

No. 120 TUDOR ST. Cause, friction of machinery; no damage.

Monday, 22d, 5-46 P.M. Box 221.

No. 2 ELMWOOD PL. Owned by Mrs. J. G. Bartholomess; loss, $222; insurance, $1,000; occupied by T. H. Flannery, as dwelling; loss, $200; originated on 2d floor; cause unknown.

Monday, 22d, 11-01 P.M. Box 26.

No. 29 ANDERSON ST. Cause, incendiary.

Remarks. — This fire was on premises owned by L. H. Tasker, and damaged the plank-walk to the amount of $40.

Tuesday, 23d, 3-01 A.M. Box 78.

No. 39 EAST BROOKLINE ST. Owned by John Haggerty; occupied by John Haggerty, as ashhouse; loss, $75; originated on 1st floor; cause, hot ashes in wooden receptacle.

Tuesday, 23d, 3-13 A.M. Box 86.

No. 1625 WASHINGTON ST. Owned by S. Smith heirs; loss, $360; insurance, $9,500; occupied by Charles E. Bryant, as billiard-hall; loss, $50; insurance, $2,100; originated on 1st floor; cause, unknown.

Tuesday, 23d, 8-40 A.M. Still.

No. 819 EAST FOURTH ST. Owned by C. H. Spaulding; loss, $38; insurance, $5,000; occupied by W. A. Murphy, as dwelling; loss, $160; insurance, $1,000; originated on 3d floor; cause, careless use of matches.

Tuesday, 23d, 10-25 A.M. Box 23.

No. 15 CAMBRIDGE ST. Owned by F. H. Moore; loss, $15; insurance. $25,000; unoccupied store; originated on awning; cause, careless use of matches.

Tuesday, 23d, 11-19 A.M. Box 112.

No. 15 SWAN ST. Cause, children setting fire to old mattress; no damage.

Tuesday, 23d, 0-21 P.M. Box 17.

Nos. 78 AND 80 NORTH ST. Owned by F. J. Smith; loss, $25; insurance, $4,000; occupied by Andrews & Sharkey, as carpenters; insurance, $400; originated on roof; cause, sparks from chimney.

Tuesday, 23d, 7-45 P.M. Still.

No. 37 ORLEANS ST. Cause, sparks on roof; no damage.

Tuesday, 23d, 10-16 P.M. Still.

No. 3 WASHINGTON PL. Owned by M. Mahoney; loss, $5; occupied by M. Mahoney, as dwelling; loss, $5; originated in basement; cause, explosion of kerosene lamp.

Remarks. — Mrs. M. Mahoney, aged 65, was fatally burned, dying soon after her removal to the hospital.

Wednesday, 24th, 1-12 A.M. Box 127.

Nos. 144 AND 146 WEST NINTH ST. Owned by Henry Faxon; loss, $392; insurance, $1,000; owned by W. H. Bessom; loss, $18; insurance, $500; occupied by Kasanof & Co., as bakery; loss, $186; insurance, $200: orinated on 1st floor of No. 146, extended to adjoining building; cause, ignition of gasoline lamp.

Wednesday, 24th, 7-20 P.M. Still.

No. 2073 WASHINGTON ST. Owned by H. W. Savage; occupied by B. L. Soberski, as furnishing-goods; loss, $50; insurance, $4,000; originated on 1st floor; cause, gas-jet igniting goods.

Thursday, 25th, 10–31 A.M. Box 212.

ALBANY ST. Cause, upsetting tar-kettle in yard of City Hospital.

Thursday, 25th, 0–43 P.M. Box 915.

EAST ST. Owned by W. B. Whittaker; loss, $15; insurance, $500; occupied by W. B. Whittaker, as carpenter; originated on outside; cause unknown.

Thursday, 25th, 1–18 P.M. Box 428.

No. 183 CHELSEA ST. Cause, fumigating the house; no damage.

Thursday, 25th, 2–08 P.M. Still.

No. 7 MARGARET ST. Owned by Wm. J. Flynn; loss, $40; insurance, $2,500: occupied by several families, as dwellings; originated on roof; cause, children setting fire to old mattress.

Thursday, 25th, 8–25 P.M. Box 225.

No. 134 NORFOLK AVE. Owned by Thomas Lynch; loss, $52; insurance, $3,471; occupied by M. Heffernan, as dwelling; loss, $110; insurance, $500; originated on 2d floor; cause unknown.

Friday, 26th, 0–37 A.M. Box 944.

No. 573 ADAMS ST. Owned by Edward Lewis, jr.; loss, $650; insurance, $800; occupied by Catherine Jones, as dwelling; loss, $750; insurance, $1,200; originated on 1st floor; cause unknown.

Friday, 26th, 9–15 A.M. Still.

No. 179 BROADWAY. Owned by A. Heyle; loss, $20; insurance, $1,000; occupied by A. S. Amheran, as bakery; originated on 1st floor; cause, hot ashes in wooden barrel.

Friday, 26th, 10–49 A.M. Box 29.

No. 62 BEACON ST. Owned by J. Stephenson; insurance, $13,000; occupied by A. Scholl, as photographer; loss, $50; originated on 5th floor; cause, spontaneous combustion.

Friday, 26th, 2–23 P.M. Still.

No. 160 PLEASANT ST. Owned by W. A. Hayes, agent; insurance, $5,000; occupied by F. A. Conant, as grocery; loss, $10; insurance, $1,000; originated in basement; cause, explosion of gas meter.

Friday, 26th, 11–50 P.M. Still.

No. 6 STILLMAN ST. Owned by R. Roach; loss, $14; insurance, $3,000; occupied by M. Berman, as dwelling; loss, $50; insurance, $500; originated on 1st floor; cause unknown.

Saturday, 27th, 11–28 A.M. Box 726.

No. 393 FEDERAL ST. Cause, friction of machinery; no damage.

Saturday, 27th, 3–40 P.M. Box 78.

No. 673 ALBANY ST. Owned by H. L. Hayford; insurance, $5,500; occupied by John Leland, as dwelling; loss, $5; originated on 2d floor; cause, children and matches.

Saturday, 27th, 8–08 P.M. Still.

BOSTON SUGAR REFINERY. Cause, lightning overcharging electric wires.

Saturday, 27th, 8–13 P.M. Still.

HIGHLAND ST. Owned by Alex. Glover; loss, $21; insurance, $2,400; occupied by Alex. Glover, as dwelling; loss, $22; insurance, $1,500; originated on 1st floor; cause, struck by lightning.

Saturday, 27th, 8–17 P.M. Box 193.

No. 25 SAGAMORE ST. Owned by J. H. Skinner; loss, $30; insurance, $3,000; occupied by J. H. Skinner, as dwelling; loss, $113; insurance, $1,500; cause, struck by lightning.

Saturday, 27th, 8–20 P.M. Still.

No. 8 HASKINS ST. Owned by Callahan heirs; loss, $25; insurance, $2,000; occupied by Mary Myers, as dwelling; originated on roof; cause, struck by lightning.

Sunday, 28th, 3–48 A.M. Box 57.

No. 34 TYLER ST. Owned by J. B. Shalam; loss, $887; insurance, $8,000; occupied by L. N. Lambert, as dwelling; loss, $67; insurance, $500; occupied by L. F. Barrett, as dwelling; loss, $100; insurance, $500; originated on 1st floor, extended to adjoining building; cause unknown.

No. 32 TYLER ST. Owned by Wm. Simms; loss, $232; insurance, $1,500; occupied by R. H. White, as carpenter.

Sunday, 28th, 7–13 A.M. Box 18.

No. 20 TREMONT ROW. Owned by J. S. Bailey; insurance, $20,000; unoccupied store; originated on 1st floor; cause, spontaneous combustion in oily rags.

Sunday, 28th, 10–33 A.M. Box 41.

No. 18 ARCH ST. Owned by J. T. Phelps; insurance, $26,000; occupied by L. P. Cowles *et al.*, as printers; insurance, $3,200; originated on 4th floor; cause, spontaneous combustion in oily waste.

Monday, 29th, 10–44 A.M. Box 819.

WESTERN AVE. Cause, soot in chimney burning.

Monday, 29th, 6–38 P.M. Still.

No. 165 F ST. Cause, spontaneous combustion in oily rags; no damage.

Monday, 29th, 9–27 P.M. Box 256.

HEATH ST. Cause, burning rubbish; no damage.

Monday, 29 h, 9–48 P.M. Box 453.

No. 537 MAIN ST. Owned by N. Hannon; loss, $26; insurance, $1,200; occupied by E. Young, as dwelling; loss, $60; insurance, $500; originated on 3d floor; cause, kerosene lamp explosion.

Monday, 29th, 10 P.M. Still.

No. 74 WARREN ST. Cause, explosion of kerosene lamp.

Remarks. — Mrs. James Wilkes was seriously burned by her clothing taking fire, and James Wilkes was badly burned trying to extinguish the flames.

Tuesday, 30th, 5–18 A.M. Box 64.

No. 929 WASHINGTON ST. Owned by J. M. Clark; loss, $197; insurance, $4,000; occupied by J. P. Lang *et al.*, as bakery, etc.; loss, $150; insurance, $2,500; originated on 1st floor; cause, kettle of fat boiling over.

Tuesday, 30th, 8–08 A.M. Still.

No. 118 WEST CONCORD ST. Owned by M. P. Kelley; loss, $50; insurance, $6,000; occupied by S. S. Kelley, as dwelling; loss, $75; insurance, $2,350; originated on 2d floor; cause, careless use of matches.

Tuesday, 30th, 10–07 A.M. Still.

No. 454 BROADWAY. Cause, smoke mistaken for fire; no damage.

Tuesday, 30th, 7–45 P.M. Box 88.

No. 482 COLUMBUS AVE. Owned by J. B. Tuttle; loss, $45; insurance, $10,000; occupied by J. B. Tuttle, as dwelling; loss, $25; originated on 3d floor; cause, gas-jet igniting curtain.

Tuesday, 30th, 8–43 P.M. Still.

No. 228 WEST THIRD ST. Cause, spontaneous combustion in manure pile.

Wednesday, 31st, 11–19 A.M. Box 37.

No. 171 MILK ST. Owned by Hunnewell heirs; insurance, $10,000; occupied by E. & F. King & Co., as paints, etc.; loss, $322; insurance, $33,000; originated in basement; cause, overheated steam-pipes.

Wednesday, 31st, 7 P.M. Box 922.

No. 4 DUNCAN ST. Owned by K. Landrigan; loss, $20; insurance, $1,800; occupied by James Keenan, as dwelling, loss, $5; originated on 2d floor; cause, careless use of matches.

Wednesday, 31st, 8–05 P.M. Box 47.

No. 271 FRANKLIN ST. Owned by J. A. Nowell; insurance, $32,965; occupied by Ashton Valve Company, as factory; loss, $634; insurance, $37,383; originated on 4th floor; cause unknown.

Wednesday, 31st, 11–05 P.M. Box 548.

No. 2 LAMARTINE–ST. COURT. Owned by George Lang; loss, $22; insurance, $1,600; occupied by F. Burket, as dwelling; loss, $25; originated on 1st floor; cause, careless use of pipe in clothing.

JUNE.

Thursday, 1st, 6 A.M. Box 15.

COMMERCIAL WHARF.

Remarks. — Fire on board steamer "Longfellow," caused by overheated stove-pipe; no damage.

Thursday, 1st, 7-40 A.M. Box 948.

No. 241 Neponset ave. Cause, smoke mistaken for fire.

Thursday, 1st, 10-50 A.M. Box 77.

No. 113 E. Dedham st. Owned by Holt, Adams & Co.; occupied by Holt, Adams & Co., as storage; originated on outside of building; cause, incendiary.

Thursday, 1st, 11-47 P.M. Box 45.

Congress and Franklin sts. Owned by E. W. Pratt; loss, $1,731; insurance, $30,000; occupied by McKenney & Waterbury, as gas fixtures; loss, $2,500; insurance, $25,000; occupied by Marshall & Son, as paper boxes; loss, $230; insurance, $20,300; occupied by H. A. Flick, as paper boxes; loss, $860; insurance, $1,000; occupied by W. B. Jones, as paper stock; loss, $130; insurance, $300; originated on fifth floor; cause, hot ashes from forge igniting woodwork.

Friday, 2d, 2-55 P.M. Still.

Williams st. Manure pile; cause unknown.

Saturday, 3d, 6-16 A.M. Box 51.

Nos. 291 and 293 Congress st. Owned by O. Ditson estate; loss, $274; insurance, $30,000; occupied by Boston Plate Glass Company, as glass, etc.; loss, $1,718; insurance, $32,500; originated on 2d floor; cause unknown.

Saturday, 3d, 6-19 A.M. Still

Exeter st. Automatic alarm from B.A A. Club-house; accidental.

Saturday, 3d, 7-55 A.M. Box 794.

False alarm.

Saturday, 3d, 9-53 P.M. Still.

No. 20 Leverett st. Owned by J. Wolfe heirs; insurance, $4,500; occupied by P. Maguire, as dwelling; insurance, $1,000; originated on first floor; cause, children and matches; no damage.

Sunday, 4th, 0-05 A.M. Box 421.

No. 30 City sq. Owned by M. Roughan; insurance, $5,000; occupied by Mary Cosgrove, as dwelling; loss, $5; originated on 4th floor; cause, explosion of lamp.

Sunday, 4th, 0-47 A.M. Box 72.

No. 2 Davis st Owned by J. M. Way; loss, $440; insurance, $6,000; occupied by M. J. Flanagan, as dwelling; loss, $60; insurance, $500; originated on 4th floor; cause, explosion of kerosene lamp.

Remarks. — Mrs. Minnie Marston was fatally injured by jumping from a window.

Sunday, 4th, 1-35 P.M. Box 427.

No. 2 Mansfield pl. Owned by C. G. Mansfield; occupied by George T. Pratt, as dwelling; cause, upsetting kerosene stove; no damage.

Sunday, 4th, 8-10 P.M. Still.

No. 1229 Washington st. Owned by Minot heirs; loss, $15; insurance, $7,600; occupied by E. C. Sprague, as dwelling; loss, $38; insurance, $2,500; originated on 4th floor; cause, gas-jet igniting curtain.

Monday, 5th, 3–32 A.M. Box 16.

NOS. 52 TO 60 ELM ST. Owned by Fifty Associates; loss, $866; insurance, $33,000; occupied by A. H. Davenport, as furniture; loss, $587; insurance, $114,000; originated on 4th floor; supposed cause, careless use of cigar.

Monday, 5th, 8–34 A.M. Box 52.

NOS. 27 AND 29 KINGSTON ST. Cause, smoke from chimney mistaken for fire.

Monday, 5th, 11–15 A.M. Still.

NO. 75 PARIS ST. Cause, children playing with matches; no damage.

Monday, 5th, 2–07 P.M. Still.

NO. 262 COMMONWEALTH AVE. Cause, smoke mistaken for fire.

Monday, 5th, 2–29 P.M. Still.

NO. 32 THAYER ST. Cause, overheated thermostat.

Monday, 5th, 4–13 P.M. Box 89.

NO. 80 COMMONWEALTH AVE. Cause, back draught from furnace; needless.

Tuesday, 6th, 9–56 A.M. Box 24.

NO. 2 MCLEAN COURT. Owned by George Sargent; loss, $540; insurance, $2,200; occupied by J. Donohoe, as dwelling; loss, $100; originated on 1st floor; cause, ignition of kerosene stove.

Tuesday, 6th, 9–56 A.M.

Incorrect winding from Box 24 caused the apparatus to respond to Box 241.

Tuesday, 6th, 1–03 P.M. Box 249.

STATION ST. Owned by Burkhardt Brewing Company; loss, $25; occupied by Burkhardt Brewing Company, as storage; insurance, $4,000; originated on roof; cause, sparks from chimney.

Tuesday, 6th, 3–27 P.M. Box 98.

NO. 383 NORTHAMPTON ST. Owned by M. Rosenfield; loss, $75; insurance, $4,000; occupied by Ella Evans, as dwelling; loss, $125; originated on 3d floor; cause unknown.

Tuesday, 6th, 3–55 P.M. Still.

NO. 151 BROADWAY. Owned by F. Topham; insurance, $1,500; occupied by J. F. Brennan, as dwelling; loss, $5; insurance, $1,000; originated on 2d floor; cause, sparks from chimney.

Tuesday, 6th, 7–40 P.M. Box 72.

NO. 19 LUCAS ST. Owned by L. Ware; loss, $19; insurance, $5,000; occupied by K. Pollock *et al.*, as dwelling; loss, $100; insurance, $500; originated on 1st floor; cause, explosion of kerosene lamp.

Tuesday, 6th, 9–55 P.M. Box 72.

NO. 1098 WASHINGTON ST. Owned by J. Parker estate; loss, $3; insurance, $100,000; occupied by S. Abbott *et al.*, as dwelling; loss, $45; insurance, $17,500; originated on 2d floor; cause, gas-jet igniting curtain.

Wednesday, 7th, 10-02 A.M. Still.

No. 185 KNEELAND ST. Owned by O. C. R.R. Corporation; loss, $5; insurance, $100,000; occupied by G. F. Lowell, as restaurant; insurance, $5,000; originated on 1st floor; cause, overheated stove.

Wednesday, 7th, 0-35 P.M. Still.

No. 18 ATLANTIC ST. Cause, boys setting fire to fence; damage, $20.

Wednesday, 7th, 4-52 P.M. Box 461.

No. 525 RUTHERFORD AVE. Owned by A. H. Allen estate; loss, $382; insurance, $11,500; occupied by J. F. McKenna, as dwelling; loss. $25; occupied by M. Riley *et al.*, as dwelling, etc.; loss, $10; insurance, $7,500; originated on 4th floor; cause, hot ashes in wooden barrel.

Wednesday, 7th, 7-27 P.M. Box 214.

No. 1920 WASHINGTON ST. Cause, bonfire, set by boys.

Thursday, 8th, 11-15 A.M. Still.

No. 40 LEVERETT ST. Cause, children playing with matches.

Friday, 9th, 0-57 A.M. Box 13.

No. 143 RICHMOND ST. Cause, spontaneous combustion in oily rags; no damage.

Friday, 9th, 4-07 P.M. Still.

No. 1 SALEM HILL COURT. Owned by T. F. Holding estate; loss, $25; occupied by C. A. Aldrich, as dwelling; originated on 1st floor; cause, children and matches.

Saturday, 10th, 10-57 A.M. Box 965.

No. 317 CODMAN ST. Owned by H. L. Pierce; occupied by Bird & Green, as morocco dressing; originated on roof; cause, sparks from chimney; no damage.

Saturday, 10th, 4-05 P.M. Still.

No. 56 ORLEANS ST. Owned by J. O'Connor; loss, $15; insurance, $1,000; occupied by J. O'Connor, as wheelwright; originated on roof; cause, sparks from chimney.

Saturday, 10th, 6-20 P.M. Still.

No. 152 LIVERPOOL ST. Cause, bonfire, set by boys.

Sunday, 11th, 10-04 A.M. Box 72.

No. 1070 WASHINGTON ST. Cause, cigarette thrown on awning; damage, $12.

Sunday, 11th, 0-29 P.M. Box 127.

No. 198 E ST. Owned by John Rule; loss, $25; insurance, $5,000; occupied by M. Conway, as dwelling; originated on outside; cause, children and matches.

Monday, 12th, 0-48 A.M. Still.

No. 33 SUMMER ST. Owned by Gardner estate; occupied by C. F. Hovey & Co., as dry goods; originated in basement; cause unknown; no damage.

Monday, 12th, 6–47 A.M. Box 965.

CODMAN ST. Owned by P. J. Lyons; loss, $200; insurance, $3,000; occupied by P. J. Lyons, as dwelling; loss, $25; originated on 3d floor; cause, careless use of matches.

Monday, 12th, 9–28 A.M. Still.

No. 319 WEST FOURTH ST. Owned by John Cathcart; loss, $10; insurance, $1,500; occupied by J. J. McNamara, as dwelling; originated in basement; cause, defective flue.

Monday, 12th, 5–52 P.M. Box 416.

No. 36 RUTHERFORD AVE. Owned by P. Barr; loss, $5; insurance, $1,600; occupied by P. Barr, as dwelling; originated on roof; cause, sparks from chimney.

Monday, 12th, 9–03 P.M. Still.

No. 336 BENNINGTON ST. Owned by M. O'Donnell; loss, $10; insurance, $500; occupied by John Carter, as dwelling; loss, $35; originated on 2d floor; cause, upsetting kerosene stove.

Tuesday, 13th, 3–25 A.M. Box 613.

SIMPSON'S DRY-DOCK. Cause, spontaneous combustion on board barque "P. J. Palmer;" damage, $25.

Wednesday, 14th, 8–30 A.M. Still.

No. 56 WEST CANTON ST. Cause, gas explosion; no damage.

Wednesday, 14th, 10–13 A.M. Box 196.

No. 267 BOSTON ST. Cause, breaking kerosene lamp; no damage.

Wednesday, 14th, 9–35 P.M. Still.

No. 1838 WASHINGTON ST. Owned by Lawrence heirs; loss, $123; insurance, $22,500; occupied by A. G. McMillar, as barber shop; loss, $125; insurance, $2,000; originated on 1st floor; cause, spontaneous combustion.

Wednesday, 14th, 10–42½ P.M. Box 53.

No. 13 BEACH ST. Owned by W. S. Hennessey; insurance, $15,000; occupied by W. S. Hennessey, as liquors; loss, $100; insurance, $5,000; originated on 1st floor; cause, careless use of candle.

Thursday, 15th, 7–35 A.M. Box 632.

No. 176 BORDER ST. Owned by J. Robbins; insurance, $2,000; occupied by J. Cunningham, as dwelling; loss, $10; originated on 3d floor; cause, children and matches.

Thursday, 15th, 10–27 A.M. Still.

No. 4½ BEACON ST. Cause, fall of ceiling breaking automatic wires.

Thursday, 15th, 5–31½ P.M. Box 425.

No. 42 COTTAGE ST. Cause, smoke from stove mistaken for fire.

Thursday, 15th, 10 P.M. Still.

WALNUT ST. Owned by P. J. Hoey; insurance, $1,000; occupied by J. J. Conley, as dwelling; loss, $5; originated on 2d floor; cause, upsetting kerosene lamp.

Friday, 16th, 2–27 P.M. Still.

No. 2 PEABODY ST. Owned by J. Winlock; insurance, $3,000; occupied by J. O'Connell, as dwelling; loss, $5; insurance, $1,000; originated in basement; cause, explosion of kerosene stove.

Friday, 16th, 6–06 P.M. Box 17.

No. 3 SALEM PL. Owned by J. Morrisey; insurance, $4,000; occupied by J. Morrisey, as dwelling; originated on roof; cause, fire-crackers; no damage.

Friday, 16th, 7–14½ P.M. Box 114.

No. 275 W. SECOND ST. Owned by James Doody; loss, $5; insurance, $1,000; occupied by T. J. Cahill, as dwelling; originated on roof; cause, fire-crackers.

Friday, 16th, 8–15 P.M. Still.

SOUTH ST. Cause, bonfire in street.

Friday, 16th, 9–35 P.M. Still.

HAVRE ST. Cause, bonfire in street.

Friday, 16th, 9–55 P.M. Still.

FEDERAL AND SHAVING STS. Cause, bonfire in street.

Friday, 16th, 9–55 P.M. Still.

FEDERAL ST. Cause, bonfire in street.

Friday, 16th, 9–55 P.M. Still.

ORLEANS ST. Cause, bonfire in street.

Friday, 16th, 10–03 P.M. Still.

LOWELL ST. Cause, bonfire in street

Friday, 16th, 10–04½ P.M. Box 456.

False alarm.

Friday, 16th, 10–15 P.M. Still.

JEFFRIES WHARF. Cause, bonfire on the wharf.

Friday, 16th, 10–15 P.M. Still.

EAST LENOX AND REED STS. Cause, bonfire in street.

Friday, 16th, 10–55 P.M. Still.

CHELSEA ST. Cause, bonfire in street.

Friday, 16th, 10–56½ P.M. Box 435.

MEDFORD ST. Cause, bonfire on vacant land; needless.

Friday, 16th, 11–23 P.M. Box 112.

GOLD ST. Cause, bonfire on bridge; needless.

Saturday, 17th, 0–30 A.M. Still.

PARIS AND MARION STS. Cause, bonfire in street.

Saturday, 17th, 1–15 A.M. Still.

CURVE AND ALBANY STS. Cause, bonfire in street.

Saturday, 17th, 2–21 A.M. Box 62.

NO. 2 PARK SQ. Cause, hot ashes igniting barrel in yard.

Saturday, 17th, 3–55 A.M. Still.

OAK AND TYLER STS. Cause, bonfire in street.

Saturday, 17th, 10–20 A.M. Still.

PARIS AND PORTER STS. Cause, bonfire in street.

Saturday, 17th, 10–37 A.M. Box 249.

NO. 635 PARKER ST. Owned by B. Harvey; loss, $50; insurance, $1,000; unoccupied dwelling; originated on 1st floor; cause unknown.

Saturday, 17th, 1–27 P.M. Still.

NO. 299 TREMONT ST. Cause, fire-crackers igniting awning; damage, $5.

Saturday, 17th, 3–10 P.M. Still.

ADAMS SQ. Cause, trolley-wire igniting switch-boxes of West End R.R.

Saturday, 17th, 4–59, 5–14 P.M. Box 5.

NO. 180 PORTLAND ST. Owned by P. Brigham heirs; loss, $733; insurance, $75,000; occupied by Indianapolis Cabinet Co., as salesroom; loss, $5,270; insurance, $6,000; occupied by Heywood Bros., as furniture; loss, $885; insurance, $47,000; occupied by A. J. Tuttle, as cutlery; loss, $100; insurance, $1,000; originated in basement; cause, electric wires.

Saturday, 17th, 8–55 P.M. Still.

BROADWAY EXTENSION. Cause, bonfire in street.

Saturday, 17th, 9–35 P.M. Box 127.

WEST NINTH AND E STS. Cause, bonfire in street; needless.

Sunday, 18th, 1–46 P.M. Box 62.

NO. 280 BOYLSTON ST. Owned by Lucy Willard; loss, $25; insurance, $1,300; occupied by L. Willard, as dwelling; originated on 1st floor; cause, incendiary.

Monday, 19th, 4–17 P.M. Box 628.

NO. 188 SUMNER ST. Owned by Wm. P. Kuhn; insurance, $16,000; occupied by M. F. Farrell, as plumber; loss, $2; originated in basement; cause, ignition of gasoline vapor.

Monday, 19th, 5–50 P.M. Still.

No. 42 WARD ST. Owned by M. H. Keenan; loss, $5; insurance, $1,000; occupied by H. Vennan, as dwelling; originated on roof; cause, sparks from chimney.

Monday, 19th, 9–10 P.M. Still.

BICKFORD ST. Cause, bonfire on the dump.

Tuesday, 20th, 1–11 A.M. Box 612.

BOSTON HARBOR, OFF JEFFRIES POINT. Cause, supposed incendiary. *Remarks.* — Fire on board the barge owned by S. W. Warren, lying off Jeffries point; damage, $2,000; insurance, $1,000.

Tuesday, 20th, 6–20 A.M. Box 93.

No. 635 TREMONT ST. Cause, smoke from stove mistaken for fire.

Tuesday, 20th, 3–14 P.M Box 419.

No. 281 RUTHERFORD AVE. Owned by F. O. and J. T. Reed; loss, $25; insurance, $1,000; occupied by C. A. Armstrong, as stable; loss, $10; originated on outside; cause, sparks from tire furnace.

Tuesday, 20th, 7–25 P.M. Still.

No. 343 SHAWMUT AVE. Owned by G. W. Black; unoccupied stable; originated in basement; cause, incendiary; no damage.

Tuesday, 20th, 10–19 P.M. Box 13.

No. 223 HANOVER ST. Owned by J W. Shute; insurance, $4,500; occupied by A. Brogi & Co., as hat store; loss, $63; insurance, $1,500; originated in basement; cause, gas-jet igniting woodwork.

Wednesday, 21st, 8–30 A.M. Still.

NORWOOD ST. Cause, sparks from locomotive igniting sleepers.

Wednesday, 21st, 9–01 A.M. Box 4.

No. 219 ENDICOTT ST. Owned by A. Bruno; loss, $25; insurance, $500; occupied by A. Bruno, as dwelling; loss, $25; originated on 2d floor; cause, breaking kerosene lamp.

Wednesday, 21st, 0–26 P.M. Still.

AMERICAN SUGAR REFINERY, LEWIS ST. Cause, accidental crossing of automatic wires.

Wednesday, 21st, 2–20 P.M. Still.

FOUNDRY ST. Cause, bonfire of old building-material.

Wednesday, 21st, 9–22 P.M. Still.

No. 766 WASHINGTON ST. Owned by H. Sigourney; loss, $10; insurance, $6,000; occupied by A. Corry *et al.*, as liquors, etc.; loss, $23; insurance, $4,500; originated on outside; cause, explosion of lamp in illuminated sign.

Wednesday, 21st, 9–47 P.M. Box 69.

No. 322 ALBANY ST. Owned by G. N. Black; loss, $10; insurance, $25,000; occupied by J. Riley, as dwelling; originated on 2d floor; cause, breaking kerosene lamp.

Thursday, 22d, 1-27 P.M. Box 14.

No. 31 FLEET ST. Cause, gas explosion; no damage.

Thursday, 22d, 5 P.M. Still.

No. 39 KINGSTON ST. Ignition of rubbish; cause unknown; no damage.

Friday, 23d, 2-19 A.M. Box 7.

ALLEN AND BRIGHTON STS. Owned by H. Marston; loss, $100; insurance, $3,000; occupied by Blake Bell Company, as foundry; loss, $109; insurance, $5,000; originated in basement; cause, spontaneous combustion.

Saturday, 24th, 6-45 A.M. Still.

NOS. 55 AND 57 OLIVER ST. Owned by J. B. Glover; insurance, $17,000; occupied by A. Beckler, as brass goods; loss, $25; insurance, $2,000; originated on 3d floor; cause, gas-jet igniting woodwork.

Saturday, 24th, 1-36 P.M. Box 928.

No. 33 MILL ST. Owned by J. M. Olmstreet; occupied by J. M. Olmstreet, as stable; originated on 2d floor; cause, children and matches; no damage.

Saturday, 24th, 3-20 P.M. Still.

No. 17 KITTREDGE ST. Cause, explosion of gasoline; no damage.

Saturday, 24th, 3-24 P.M. Box 26.

No. 3 CAMBRIDGE-ST. AVE. Cause, smoke from stove mistaken for fire.

Sunday, 25th, 11-45 A.M. Still.

MAIN ST. Cause, electric motor igniting car; damage, $25.

Sunday, 25th, 6-45 P.M. Box 5.

Remarks. — This alarm was pulled by a citizen under the impression that it was a police patrol-box to summon the patrol to care for a man injured by electric car on Lowell street.

Sunday, 25th, 9-32 P.M. Box 212.

No. 66 HAMPDEN ST. Owned by G. Carbis; occupied by John Little, as dwelling; loss, $10; originated on 2d floor; cause, upsetting kerosene lamp.

Monday, 26th, 11-37 A.M. Still.

No. 168 TREMONT ST. Cause, sparks from chimney; no damage.

Monday, 26th, 9-18 P.M. Box 12.

No. 18 COOPER ST. Cause, explosion of gasoline; no damage.

Tuesday, 27th, 4-43 P.M. Still.

No. 142 FRIEND ST. Owned by A. W. Hastings; loss, $53; insurance, $10,000; occupied by A. W. Hastings, as sash and blinds; originated on 1st floor; cause, dropping kerosene lantern.

Tuesday, 27th, 8–03 P.M. Box 215.

No. 5 WARWICK ST. Owned by M. Marks; loss, $53; insurance, $4,000; occupied by Andrew Redman, as dwelling; loss, $15; originated on 1st floor; cause, breaking kerosene lamp.

Wednesday, 28th, 1–16 A.M. Box 62.

No. 201 ELIOT ST. Owned by J. Stevenson; loss, $2; insurance, $2,500; occupied by H. R. Baxter, as dwelling; loss, $60; insurance, $1,000; originated on 3d floor; cause unknown.

Wednesday, 28th, 1–37 A.M. Box 35.

No. 37 TREMONT ST. Owned by Hammond estate; loss, $4,201; insurance, $17,820; owned by Weld & Welch, trustees; loss, $73; insurance, $12,000; occupied by A. A. Mills, as art store; insurance, $3,135; occupied by A. W. Merrill, as artist; loss, $150; occupied by J. J. Connelly, as auctioneer; loss, $179; insurance, $8,000; occupied by A. Benari *et al.*, as liquors; loss, $100; insurance, $3,000; originated on 3d floor; cause unknown.

Wednesday, 28th, 1–50 P.M. Still.

ORLEANS ST. Cause, spontaneous combustion in manure pile.

Thursday, 29th, 7–50 P.M. Box 57.

No. 25 HUDSON ST. Owned by Newton Associates; insurance, $16,000; occupied by A. Vraforo, as tailor; loss, $85; insurance, $2,000; originated on 3d floor; cause, fireworks.

Friday, 30th, 0–42 P.M. Box 143.

No. 5 GRIMES ST. Owned by Wm. Loveless; loss, $15; insurance, $2,000; occupied by T. E. Doherty, as dwelling; loss, $10; originated on 3d floor; cause, children and matches.

JULY.

Saturday, 1st, 8–25 A.M. Still.

No. 75½ CAMBRIDGE ST. Owned by French & Son; occupied by A. M. Shea *et al.*, as dwelling; originated on 3d floor; cause, kerosene stove igniting curtain.

Saturday, 1st, 9–17 P.M. Box 68.

No. 600 HARRISON AVE. Owned by J. J. Williams; occupied by P. K. McCarthy, as dwelling; loss, $5; originated on 2d floor; cause, explosion of kerosene lamp.

Saturday, 1st, 9–59 P.M. Box 83.

No. 32 NORTHFIELD ST. Owned by R. O'Brien; loss, $27; insurance, $3,000; occupied by F. McGillen, as dwelling; loss, $25; originated on 3d floor; cause, upsetting kerosene lamp.

Sunday, 2d, 11–18 A.M. Box 436.

No. 15 WALNUT ST. Owned by P. Killilea; insurance, $2,000; occupied by P. Killilea *et al.*, as dwelling; originated in basement; cause, children playing with matches.

Sunday, 2d, 0–12 P.M. Box 13.

No. 183 NORTH ST. Cause, hot ashes in wooden box; no damage.

Sunday, 2d, 4–10 P.M. Still.

No. 6½ CROSS ST. Owned by J. L. Romm; loss, $20; insurance, $5,000; occupied by several families, as dwelling; originated on roof; cause, boys setting fire to old mattress.

Sunday, 2d, 5–40 P.M. Box 65.

No. 38 OSWEGO ST. Cause, building fire with kerosene; no damage.

Sunday, 2d, 10–05 P.M. Box 521.

No. 143 BOYLSTON AVE. Cause, upsetting kerosene lamp; no damage.

Remarks. — A domestic named Honorah Ahlbery was fatally burned.

Monday, 3d, 8–12 P.M. Box 112.

No. 26 COLONY ST. Cause, fireworks igniting mattress on roof; no damage.

Monday, 3d, 8–44 P.M. Still.

No. 44 MONMOUTH ST. Owned by J. McPherson; loss, $5; insurance, $2,000; occupied by F. H. Jorth, as dwelling; insurance, $1,000; originated on 3d floor; cause, dropping match in can of powder.

Monday, 3d, 10–44 P.M. Box 512.

No. 40 BOYLSTON ST. Owned by Boylston estate; loss, $10; occupied as hennery; originated on 1st floor; cause, incendiary.

Monday, 3d, 11–21 P.M. Box 13.

No. 31 NORTH SQ. Cause, breaking kerosene lamp; no damage.

Tuesday, 4th, 0–07 A.M. Still.

No. 23 MILL ST. Owned by B. Flannagan; loss, $10; insurance, $1,000; occupied by B. Flannagan, as dwelling; loss, $10; originated on 3d floor; cause, fire-crackers.

Tuesday, 4th, 2–32 A.M. Box 456.

False alarm.

Tuesday, 4th, 2.55 A.M. Box 368.

NORFOLK ST. Owned by Geo. W. McCauley; loss, $100; unoccupied dwelling; originated in shed in rear; cause, incendiary.

Tuesday, 4th, 3–14 A.M. Still.

No. 4198 WASHINGTON ST. Owned by H. Lindell; occupied by A. S. P. Weeks, as blacksmith; originated on outside; cause, incendiary.

Tuesday, 4th, 8–28 A.M. Still.

No. 95 W. BROOKLINE ST. Owned by L. Leftovitch; occupied by A. Cutler, as dwelling; originated on 4th floor; cause, gas-jet igniting curtain.

Tuesday, 4th, 9–37 A.M. Box 226.

No. 94A BLUE HILL AVE. Owned by Mary Kelley; loss, $13; insurance, $4,500; occupied by E. J. Flynn, as dwelling; originated on 1st floor; cause, fire-crackers.

Tuesday, 4th, 9–58 A.M. Still.

Remarks. — Fire on board the schooner "Glenmere," lying at the State docks, caused by overheated stove in cabin; damage, $1,000; owned by St. John, N.B., parties.

Tuesday, 4th, 10–40 A.M. Still.

No. 151 TREMONT ST. Owned by Hill heirs; occupied by L. A. Dandridge, as dwelling; originated on 5th floor; cause, children and matches.

Tuesday, 4th, 10–55 A.M. Box 427.

No. 2 BUNKER HILL ST. Owned by M. J. Roughan; loss, $10; insurance, $15,000; occupied by M. J. Roughan, as saloon; loss, $20; insurance, $7,500; originated on awning; cause, fire-crackers.

Tuesday, 4th, 11–55 A.M. Still.

No. 128 HAVRE ST. Owned by J. McLaughlin; occupied by P. J. McLaughlin, as dwelling; originated on roof; cause, fire-crackers.

Tuesday, 4th, 11–55 A.M. Still.

No. 151 NORTHAMPTON ST. Owned by L. Abrahams; loss, $15; insurance, $4,000; unoccupied dwelling; originated on outside; cause, fire-crackers in wooden conductor.

Tuesday, 4th, 0–49 P.M. Box 216.

No. 289 RUGGLES ST. Owned by E. Bampton; loss, $15; insurance, $2,000; occupied by G. E. Malder, as dwelling; originated on 1st floor; cause, fire-crackers.

Tuesday, 4th, 0–53 P.M. Box 53.

No. 36 ESSEX ST. Owned by A. P. Morse; loss, $83; insurance, $3,000; unoccupied; originated on roof; cause, fireworks.

Tuesday, 4th, 1–05 P.M. Box 634.

No. 51 BENNINGTON ST. Owned by I. Adamson heirs; loss, $15; insurance, $1,500; occupied by D. L. Adamson, as dwelling; insurance, $1,000; originated on roof; cause, fire-crackers.

Tuesday, 4th, 1–17 P.M. Box 2.

No. 498 COMMERCIAL ST. Owned by A. Robbins estate; loss, $85; insurance, $11,000; occupied by A. W. Hastings, as doors and sashes; originated on roof; cause, fire-crackers.

Tuesday, 4th, 2 P.M. Box 61.

No. 99 PLEASANT ST. Owned by J. M. Wade; occupied by J. Jelbflosch, as dwelling; originated on roof; cause, fireworks; no damage.

Tuesday, 4th, 2–11 P.M. Box 114.

No. 319 D ST. Owned by M. J. Ryder; occupied by M. J. Ryder, as stable; originated on 1st floor; set by children.

Tuesday, 4th, 2–25 P.M. Still.

No. 81 W. CANTON ST. Cause, fire-crackers on roof of shed; no damage.

Tuesday, 4th, 2–55 P.M. Box 7.

No. 2 POPLAR PL. Cause, hot ashes igniting barrel in yard; no damage.

Tuesday, 4th, 3–24 P.M. Box 432.

No. 3 AVON PL. Owned by Wm. Raymond; loss, $5; insurance, $500; occupied by James Farley, as dwelling; originated on roof; cause, fire-crackers.

Tuesday, 4th, 3–28 P.M. Box 41.

No. 277 WASHINGTON ST. Owned by W. L. Wainwright; loss, $559; insurance, $4,000; occupied by F. A. Andrews, as jeweller; loss, $297; insurance, $1,200; originated on 3d floor; cause, ignition of benzine.

Tuesday, 4th, 4–20 P.M. Box 457.

Cause, fire across the city limits, in Somerville.

Tuesday, 4th, 4–50 P.M. Still.

No. 38 WARREN ST. Owned by A. Teel; loss, $5; insurance, $1,000; occupied by A. Teel, as carriage shed; originated on roof; cause, fire-crackers.

Tuesday, 4th, 7–04 P.M. Box 573.

LAMARTINE ST. Occupied by Wm. Anderson, as grocer; loss, $12; insurance, $1,000; originated outside; cause, fire-crackers igniting awning.

Tuesday, 4th, 8–57 P.M. Still.

No. 7 FULTON ST. Owned by D. H. Baxter; occupied by D. H. Baxter, as stable; originated on roof; cause, fireworks.

Tuesday, 4th, 9–36 P.M. Box 212.

No. 805 ALBANY ST. Owned by J. Morrill; occupied by M. J. O'Brien, as junk-shop; originated on roof; cause, fire-crackers.

Tuesday, 4th, 10–02 P.M. Still.

No. 297 BORDER ST. Owned by J. M. Kenniston; insurance, $300; occupied by R. J. Kenniston, as blacksmith; loss, $5; insurance, $500; originated on roof; cause, fire-crackers.

Tuesday, 4th, 11–13 P.M. Box 368.

NORFOLK ST. Owned by Geo. W. McCawley; unoccupied dwelling; originated on 1st floor; cause, incendiary.

Tuesday, 4th, 11–48 P.M. Still.

No. 75 WESTMINSTER ST. Owned by J. L. Noyes; loss, $75; occupied by J. L. Noyes, as dwelling; loss, $300; originated on 3d floor; cause, supposed rats and matches.

Wednesday, 5th, 5–09 A.M. Box 7.

No. 79 POPLAR ST. Owned by R. Leibson; loss, $65; insurance, $4,500; occupied by R. Leibson, as dwelling; originated on 2d floor; cause, incendiary.

Wednesday, 5th, 11-13 A.M. Box 212.

No. 57 Hampden st. Owned by Miss Rigby; loss, $8; insurance, $5,100; occupied by R. H. Mullen, as dwelling; originated on roof; cause, sparks from chimney.

Wednesday, 5th, 2-15 P.M. Still.

Temple pl. Cause, spontaneous combustion of rags on roof; no damage.

Wednesday, 5th, 7-49 P.M. Box 73.

No. 303 Shawmut ave. Owned by H. N. Flagg; loss, $60; insurance, $68,000; occupied by C. A. Carter, as dwelling; loss, $25; insurance, $2,000; originated on 1st floor; cause, gas-jet igniting curtain.

Wednesday, 5th, 8-58 P.M. Box 49.

Arch and Otis sts. Owned by F. Waterman heirs; loss, $1,446; insurance, $45,000; occupied by H. T. Edwards, as electric fixtures; loss, $3,300; insurance, $4,000; occupied by J. Rothwell & Co., as clothing; loss, $4,000; insurance, $235,000; originated on 1st floor; cause, electric wires.

Wednesday, 5th, 9-57 P.M. Box 615.

No. 245 Webster st. Owned by M. S. Anderson; loss, $75; insurance, $1,500; occupied by J. McCully, as dwelling; loss, $423; insurance, $2,000; originated on 1st floor; cause, kerosene-lamp explosion.

Thursday, 6th, 0-38 A.M. Box 93.

No. 576 Tremont st. Owned by J. C. Haynes; loss, $187; insurance, $400; occupied by R. & W. Ritchie, as paint-shop; loss, $290; insurance, $500; occupied by G. Ritchie, as periodicals; loss, $600; insurance, $1,000; originated in basement; cause unknown.

Thursday, 6th, 9-34 A.M. Box 214.

No. 1904 Washington st. Owned by M. Rubolitz; occupied by A. E. Marr, as dwelling; loss, $10; insurance, $2,000; originated on 5th floor; cause unknown.

Thursday, 6th, 1-15 P.M. Still.

No. 14 Wordsworth st. Owned by C. Pfieffer; loss, $15; insurance, $1,000; occupied by S. Fitzgerald, as dwelling; loss, $15; originated on second floor; cause, careless use of pipe in clothing.

Thursday, 6th, 9-28 P.M. Box 636.

No. 170 Bremen st. Owned by J. W. Holbrook; insurance, $200; occupied by B. Myer, as junk-shop; originated on outside; cause, incendiary.

Friday, 7th, 10-10 A.M. Box 129.

No. 44 West Sixth st. Owned by M. Hickey; occupied by Wm. Barrett, as dwelling; loss, $25; originated on 1st floor; cause, children and matches.

Friday, 7th, 8-32 P.M. Box 15.

No. 110 Commercial st. Owned by H. F. Ross; loss, $424; insurance, $6,000; occupied by Butler, Blethen & Butler, as fruits, etc.; loss, $67; insurance, $2,500; occupied by E. C. Miller, as cigars, etc.; loss, $748; insurance, $4,000; originated on 2d floor; cause unknown.

Friday, 7th, 10–44 P.M. Box 35.

TREMONT AND BEACON STS. Cause, spontaneous combustion in rags in bath-rooms of Tremont House; no damage.

Saturday, 8th, 4–19 P.M. Still.

FOUNDRY ST. Owned by South Boston Iron Company; occupied by South Boston Iron Company, as storehouse; originated on roof; cause, sparks from locomotive.

Saturday, 8th, 5–31 P.M. Box 37.

NO. 134 MILK ST. Owned by A. J. Burbank; loss, $75; insurance, $5,000; occupied by A. Klipstein, as chemicals, etc.; loss, $50; insurance, $28,100; originated on 2d floor; cause, rats and matches.

Saturday, 8th, 6–34 P.M. Box 86.

NO. 9 WORCESTER SQ. Owned by O. Lappen; loss, $17; insurance, $10,000; occupied by N. Manning, as dwelling; loss, $32; insurance, $3,000; originated on third floor; cause, gas-jet igniting curtain.

Saturday, 8th, 11–55 P.M. Still.

WAVERLEY PL. Owned by D. Stanbury; loss, $10; insurance, $4,000; occupied by J. McDonald, as dwelling; originated on 2d floor; cause, breaking kerosene lamp.

Sunday, 9th, 10–24 A.M. Box 6.

NO. 48 BARTON ST. Owned by D. Livingstone; loss, $46; insurance, $2,000; occupied by M. Negles, as dwelling; loss, $10; originated on 1st floor; cause, kerosene stove taking fire.

Sunday, 9th, 0–06 P.M. Still.

NO. 11 CROSS ST. Owned by J. Colbert; loss, $20; insurance, $4,000; occupied by H. Hyman, as dwelling; originated on 4th floor; cause, children and matches.

Sunday, 9th, 8–50 P.M. Still.

NO. 24 SOMERSET ST. Owned by A. O. Richardson; occupied by M. Thomas, as dwelling; loss, $33; insurance, $2,000; originated on 3d floor; cause, gas-jet igniting curtain.

Sunday, 9th, 11–54 P.M. Box 53.

NO. 27 HAYWARD PL. Owned by J. Stetson; loss, $25; insurance, $6,000; occupied by A. Dreyfus, as restaurant; loss, $75; insurance, $6,000; originated on 3d floor; cause, careless use of cigar igniting curtain.

Tuesday, 11th, 1–02 A.M. Box 16.

NOS. 20 AND 22 NORTH ST. Owned by Hammond estate; loss, $107; insurance, $5,000; occupied by N.E. Dressed Meat Company, as cold storage; loss, $60; insurance, $60,000; originated in basement; cause, sparks from furnace.

Tuesday, 11th, 9–06 A.M. Box 529.

GLENSIDE ST. Cause, soot in chimney burning.

Tuesday, 11th, 10-34 A.M. Box 236.

No. 198 CABOT ST. Owned by C. Cleary; loss, $131; insurance, $3,000; occupied by J. Evans, as dwelling; loss, $10; originated on outside; cause, children and matches.

Tuesday, 11th, 11-50 A.M. Still.

No. 21 BOWERS ST. Owned by Thomas Shea; loss, $35; insurance, $600; occupied by C. H. Sefton, as paint-shop; loss, $178; insurance, $700; originated on 1st floor; cause, boiling over of kettle of wax.

Tuesday, 11th, 0-11 P.M. Box 129.

No. 57 WEST FIFTH ST. Owned by J. Murphy; loss, $25; insurance, $1,500; occupied by J. Murphy, as dwelling; loss, $47; insurance, $300; originated on 3d floor; cause, defective flue.

Tuesday, 11th, 1-56 P.M. Still.

No. 137 DORCHESTER AVE. Owned by T. Leavitt; loss, $125; insurance, $2,500; occupied by Ellen Carr, as variety store; loss, $65; insurance, $800; originated on 1st floor; cause unknown.

Tuesday, 11th, 3-50 P.M. Still.

No. 59 WEST THIRD ST. Owned by C. W. Loring; occupied by McVey & Crowley, as blacksmiths; originated on roof; cause, sparks from forge.

Tuesday, 11th, 4-11 P.M. Still.

No. 11 INDIA SQ. Cause, ignition of gas from lantern.

Tuesday, 11th, 6-04 P.M. Box 539.

HYDE PARK AVE. Owned by L. Ramsay; occupied by Mrs. Demerritt, as dwelling; originated in shed; cause unknown.

Tuesday, 11th, 10 P.M. Still.

No. 2 COLTON ST. Owned by L. J. Logan; occupied by B. Connolley, as dwelling; originated on 2d floor; cause, breaking kerosene lamp.

Wednesday, 12th, 3-10 A.M. Box 546.

MONTGOMERY ST. Owned by L. Chapelle; loss, $250; occupied by L. Chapelle, as stable-shed; insurance, $200; originated on 1st floor; cause, incendiary.

Wednesday, 12th, 7-25 A.M. Still.

Nos. 38 AND 40 CHURCH ST. Owned by T. J. Homer, trustee; loss, $20; insurance, $2,500; occupied by M. Moley, as dining-rooms; originated on 1st floor; cause, overheated stove-pipe.

Wednesday, 12th, 9 A.M. Box 35.

Nos. 24 AND 26 TREMONT ST. Cause, ignition of chemicals on stove; no damage.

Wednesday, 12th, 9-39 A.M. Box 87.

No. 1 PARNELL ST. Owned by D. Coyne estate; loss, $424; insurance, $3,000; occupied by C. Coyne, as dwelling; loss, $435; insurance, $1,000; originated on 3d floor; cause unknown.

Wednesday, 12th, 0-07 P.M. Box 854.

No. 4 ROCKLAND ST. Owned by Wm. Wild; loss, $20; insurance, $4,000; occupied by W. Beal, as dwelling; loss, $20; insurance, $400; originated in basement; cause, ignition of kerosene lamp.

Wednesday, 12th, 3-20 P.M. Still.

No. 46 WAREHAM ST. Automatic alarm; cause unknown.

Wednesday, 12th, 4-29 P.M. Box 256.

No. 11½ BICKFORD ST. Owned by J. S. Bradbury; loss, $20; insurance, $1,500; occupied by S. Snyder, as dwelling; loss, $25; originated on 3d floor; cause, ignition of kerosene stove.

Remarks. — Hoseman D. J. O'Dea, of Engine No. 12, fell from Truck No. 12 while responding to the alarm, and was run over by the truck, breaking his left leg and injuring the right severely.

Wednesday, 12th, 8-50 P.M. Box 336.

MONTGOMERY ST. Owned by N. Y. & N. E. R.R.; occupied by N. Y. & N. E. R.R., as depot; originated on 1st floor; cause, electric wires.

Wednesday, 12th, 9-25 P.M. Box 454.

ALFORD ST. Owned by Metropolitan Sewage Commission; loss, $20; occupied by Metropolitan Sewage Commission, as oil-sheds; originated on 1st floor; cause, sparks from furnace.

Thursday, 13th, 8-52 A.M. Box 146.

No. 762 E. EIGHTH ST. Owned by J. McNamara; occupied by A. Hookway, as dwelling; originated on 3d floor; cause, children and matches.

Thursday, 13th, 4-44 P.M. Box 561.

VERMONT AVE. Cause, explosion of plumber's furnace; no damage.

Thursday, 13th, 5-39 P.M. Box 157.

No. 244 WEST FIFTH ST. Owned by Pearce Brothers; occupied by M. Schefferin, as dwelling; originated on roof; cause unknown.

Remarks. — Lieutenant Flanagan, of Chemical Engine No. 8, and a citizen named D. F. O'Neil were slightly injured by a collision between the engine and a wagon driven by O'Neil.

Thursday, 13th, 9-31 P.M. Box 13.

No. 141 RICHMOND ST. Cause, burning of oily rags; no damage.

Friday, 14th, 0-48 P.M. Still.

No. 9 FAY ST. Owned by M. Cohen; loss, $10; insurance, $4,000; occupied by G. Cohen, as dwelling; loss, $6; insurance, $300; originated on 3d floor; cause, explosion of kerosene stove.

Friday, 14th, 2-37 P.M. Still.

No. 851 HARRISON AVE. Owned by C. E. Cotting; insurance, $6,500; occupied by A. McKeon, as dwelling; originated on 1st floor; cause unknown.

Friday, 14th, 7–22 P.M. Box 54.

No. 65 ESSEX ST. Owned by M. D. Kimball heirs; loss, $375; insurance, $47,500; occupied by L. Sneider *et al.*, as tailors, etc.; loss, $5,058; insurance, $14,725; occupied by Wheeler Manufacturing Company, as workrooms; loss, $74; insurance, $3,000; originated on 5th floor; cause unknown.

Friday, 14th, 8–33 P.M. Box 9.

No. 436 COMMERCIAL ST. Owned by N. Billezia; loss, $32; insurance, $7,000; occupied by L. Miller, as dwelling; loss, $25; originated on 4th floor; cause, children and matches.

Saturday, 15th, 1–49 P.M. Box 127.

Cause, false alarm given by boys.

Saturday, 15th, 2–45 P.M. Box 838.

LINCOLN ST. Cause, sparks from locomotive igniting grass.

Saturday, 15th, 3–35 P.M. Still.

No. 71 WARREN ST. Cause, sparks from furnace igniting awning; damage, $15.

Saturday, 15th, 3–56 P.M. Box 125.

No. 21 EARL ST. Owned by J. Sweeney; insurance, $800; occupied by J. Sweeney, as dwelling; loss, $200; originated on roof; cause unknown.

Saturday, 15th, 5–15 P.M. Box 69.

No. 390 ALBANY ST. Owned by Prescott & Hobbs; loss, $150; occupied by G. W. McCawley, as lumber; loss, $625; insurance, $4,500; originated on 1st floor; cause unknown.

Saturday, 15th, 9–35 P.M. Still.

No. 81 BRISTOL ST. Owned by J. F. Paul; occupied by J. F. Paul, as dry-house; originated on roof; cause, sparks from chimney.

Saturday, 15th, 11–31, 11–44 P.M. Box 37.

Nos. 1 AND 3 COMMERCIAL ST. Owned by Quincy estate; loss, $2,603; insurance, $23,500; occupied by H. Callender & Co., as grocers; loss, $21,373; insurance, $50,000; occupied by Call & Stevens, as produce; loss, $47; insurance, $4,000; occupied by G. H. Cheever *et al.*, as produce; loss, $155; insurance, $225; occupied by Fisher & Wise, as mill agents; loss, $152; insurance, $350; originated on 2d floor; cause unknown.

Sunday, 16th, 11–57 A.M. Box 91.

No. 11 ALBEMARLE ST. Cause, smoke from stove; needless alarm.

Monday, 17th, 8–56 P.M. Box 637.

No. 263 MERIDIAN ST. Owned by W. Snelling; loss, $5; insurance, $5,250; occupied by J. E. Sowden, as groceries; loss, $10; insurance, $2,000; originated on 1st floor; cause, rats and matches.

Tuesday, 18th, 10–40 A.M. Still.

No. 21 TRUMBULL ST. Owned by J. Goldie; insurance, $2,000; occupied by A. Brennan, as dwelling; loss, $100; originated on 2d floor; cause, children and matches.

Tuesday, 18th, 1-18 P.M. Box 2.

No. 4 PHIPPS PL. Owned by Wm. Bagley; loss, $59; insurance, $3,000; occupied by Mary Anderson, as dwelling; loss, $12; insurance, $500; originated on 2d floor; cause unknown.

Tuesday, 18th, 5-39 P.M. Box 919.

No. 179 FREEPORT ST. Owned by D. Whelton; loss, $5; insurance, $1,400; occupied by M. Carey, as dwelling; originated on roof; cause, sparks from chimney.

Tuesday, 18th, 5-48 P.M. Box 2.

No. 4 PHIPPS PL. Owned by Wm. Bagley; insurance, $3,000; occupied by M. Anderson, as dwelling; loss, $75; insurance, $500; originated on 2d floor; cause, supposed incendiary.

Tuesday, 18th, 7-32 P.M. Box 539.

GREEN HILL AVE. Owned by P. Conly; occupied by P. Conly, as dwelling; originated on 3d floor; cause, careless smoking in bed.

Wednesday, 19th, 0-23 P.M. Box 127.

No. 89 WEST EIGHTH ST. Cause, smoke from chimney; needless.

Wednesday, 19th, 0-48 P.M. Box 127.

No. 89 WEST EIGHTH ST. Cause, smoke from chimney; needless.

Wednesday, 19th, 1-02 P.M. Box 52.

NOS. 36 AND 38 LINCOLN ST. Owned by Harris estate; insurance, $15,000; occupied by Harris estate, as storeroom; insurance, $5,000; originated on 5th floor; cause, electric wires.

Wednesday, 19th, 7-30 P.M. Still.

No. 17 COVE PL. Owned by M. B. and C. P. Cummings; loss, $50; insurance, $1,500; occupied by W. S. Sheridan, as dwelling; originated on 4th floor; cause, defective flue.

Thursday, 20th, 0-45 P.M. Box 925.

JOSEPHINE, DITSON, AND LEROY STS. Owned by W. L. Libby; loss, $2,259; insurance, $6,000; owned by T. R. Emery; loss, $885; insurance, $3,000; owned by H. N. Siebert; insurance, $3,000; owned by A. C. Armstrong; insurance, $2,000; occupied by T. R. Emery, as dwelling; loss, $600; insurance, $1,000; occupied by H. N. Siebert, as dwelling; occupied by A. C. Armstrong, as dwelling; originated on 1st floor, extended to adjoining building; cause, careless use of matches.

Thursday, 20th, 1-15 P.M. Box 424.

No. 3 CRIMMINS PL. Owned by L. B. Coleman; loss, $30; insurance, $7,000; occupied by J. Sullivan, as dwelling; loss, $50; originated on 1st floor; cause, children and matches.

Friday, 21st, 0-35 P.M. Still.

DUDLEY AND WARREN STS. Cause, ignition of electric car from motor.

Friday, 21st, 7-01 P.M. Box 113.

No. 184 WEST FIRST ST. Owned by A. P. Morse; unoccupied stable; originated on 1st floor; cause, careless use of matches.

Friday, 21st, 9 P.M. Still.

No. 63 Webster st. Owned by L. W. Wolfson; insurance, $1,700; occupied by J. Aronson, as dwelling; loss, $3; originated on 1st floor; cause, candle igniting curtain.

Friday, 21st, 10–51 P.M. Box 254.

Pynchon and Cedar sts. Owned by H. W. Habich & Co.; loss, $135; insurance, $53,910; occupied by Norfolk Brewing Company, as storehouse; originated on 4th floor; cause unknown.

Saturday, 22d, 2–54 A.M. Box 37.

No. 57 So. Market st. Owned by M. A. Clark; loss, $75; insurance, $5,000; occupied by W. F. Hall, as truckman; loss, $25; originated on 3d floor; cause, rats and matches.

Saturday, 22d, 7–35 A.M. Still.

No. 51 Northampton st. Owned by J. R. Magullion; occupied by T. J. Williams, as dwelling; originated on 1st floor; cause unknown.

Saturday, 22d, 11–45 A.M. Still.

No. 16 Winchester st. Cause, upsetting kerosene stove; no damage.

Saturday, 22d, 2–05, 2–09 P.M. Box 14.

Nos. 269 and 273 Commercial st. Owned by G. W. Taylor; loss, $1,900; insurance, $10,000; occupied by J. A. Folsom & Co., as druggists; insurance, $3,500; occupied by Minard Liniment Company, as liniment; loss, $1,674: insurance, $5,000; occupied by Standard Clothing Company *et al.*, as tailor-shop; insurance, $11,597; originated on 2d floor; cause, careless use of matches.

Remarks. — By the breaking of a ladder of Truck No. 8, Hoseman Ryan, of Engine No. 25, was thrown to the sidewalk and seriously hurt. Sub. Sweeney, of the same company, and Ladderman Cottell, of H. & L. No. 8, were slightly injured from the same cause.

Saturday, 22d, 4–15 P.M. Still.

Boston & Albany freight yard. In freight car; cause unknown; damage, $100.

Saturday, 22d, 6–40 P.M. Still.

No. 490 Harrison ave. Cause, crossing of automatic wires.

Sunday, 23d, 11–24 A.M. Box 29.

No. 30 Chestnut st. Owned by Chas. Kennard; loss, $572; insurance, $5,000; unoccupied dwelling; originated on 1st floor; cause, slacking of lime.

Sunday, 23d, 1–15 P.M. Still.

No. 381 Main st. Cause, smoky kerosene lamp.

Sunday, 23d, 2–39 P.M. Box 451.

No. 157 Medford st. Owned by R. A. Ballou; loss, $15; insurance, $1,750; occupied by J. Coffin *et al.*, as dwelling; originated on roof; cause, struck by lightning.

Sunday, 23d, 8–40 P.M. Still.

No. 369 TREMONT ST. Owned by C. A. Baker; occupied by J. O. Shea, as dwelling; originated on 3d floor; cause, gas-jet igniting curtain.

Monday, 24th, 3–34 A.M. Box 15.

Nos. 13 AND 14 COMMERCIAL WHARF. Owned by Commercial Wharf Corporation; loss, $470; insurance, $2,000; occupied by O. Hodgkins, as paper stocks; loss, $1,492; insurance, $2,250; originated on 4th floor; cause, electric wires.

Tuesday, 25th, 10–47 A.M. Box 146.

No. 156 O ST. Owned by E. W. Hall; loss, $65; insurance, $1,500; occupied by J. Ninen, as dwelling; loss, $15; originated on 3d floor; cause, children and matches.

Tuesday, 25th, 10–04 P.M. Still.

No. 23 WEST FIRST ST. Owned by P. Lally; insurance, $11,000; occupied by Pratt Manufacturing Company, as shoe-findings; originated on 3d floor; cause, sparks from forge.

Wednesday, 26th, 2–50 A.M. Still.

No. 79 PITTS ST. Owned by A. McLane; occupied by H. S. Polsey, as confectioner; originated on 3d floor; cause, hot ashes igniting coke.

Wednesday, 26th, 9–30 A.M. Box 53.

No. 623 WASHINGTON ST. Owned by L. M. Crabtree; insurance, $60,000; occupied by J. F. Reynolds, as hotel; loss, $25; insurance, $75,000; originated on outside; cause, match igniting awning; carelessness.

Wednesday, 26th, 10–45 A.M. Still.

No. 158 HAVRE ST. Cause, smoke from stove mistaken for fire.

Wednesday, 26th, 3–44 P.M. Box 18.

No. 46 BRATTLE ST.

Remarks. — J. McDonald, an employé of the Lovell Arms Company, exploded a small quantity of powder while filling cartridges. He was slightly injured and removed to hospital. Captain Quigley, of Engine No. 6, was slightly hurt by falling on street while responding to the alarm.

Thursday, 27th, 10–23 P.M. Box 5.

No. 68 NASHUA ST. Owned by H. Williams; occupied by J. Hamilton, as dwelling; loss, $5; originated on 2d floor; cause, breaking kerosene lamp.

Thursday, 27th, 10–38 P.M. Still.

HOTEL VENDOME. Cause, match thrown on awning; carelessness.

Friday, 28th, 6–38 A.M. Box 57.

No. 95 HUDSON ST. Owned by D. F. Hinckley; occupied by M. Jobitsch, as dwelling; loss, $5; insurance, $500; originated on 4th floor; cause, smoking in bed.

Friday, 28th, 9–35 A.M. Box 129.

No. 11 B ST. Owned by J. Holland; occupied by several families, as dwelling; originated in basement; cause, children and matches.

Friday, 28th, 11–08 A.M. Box 19.

No. 35 Cross st. Owned by A. Sussu; loss, $35; insurance, $3,000; occupied by H. Goldman, as dwelling; loss, $35; originated on 2d floor; cause, sparks from chimney flue.

Friday, 28th, 7–31 P.M. Box 17.

No. 57 Salem st. Cause, smoke from kerosene lamp.

Saturday, 29th, 7–30 A.M. Box 4.

No. 170 Canal st. Cause, ignition of fat on stove; no damage.

Saturday, 29th, 8–40 A.M. Still.

No. 150 Pleasant st. Cause, soot in chimney burning.

Saturday, 29th, 8–50 A.M. Still.

No. 28 Sullivan st. Cause, smoke from kerosene stove.

Saturday, 29th, 5 P.M. Still.

No. 29 Purchase st. Cause, breaking steam connection to boiler.

Sunday, 30th, 5–08 P.M. Still.

No. 63 Leverett st. Owned by L. R. Cutter; occupied by M. McAvoy, as dwelling; originated in basement; cause, incendiary.

Sunday, 30th, 11 P.M. Still.

No. 10 Ridgeway lane. Owned by L. Norcross; loss, $25; insurance, $2,000; occupied by H. P. Bradstreet, as dwelling; originated on roof; cause, sparks from chimney.

Monday, 31st, 10–28 A.M. Box 146.

No. 775 East Sixth st. Cause, children and matches; needless alarm.

Monday, 31st, 9–36 P.M. Box 83.

No. 100 Camden st. Cause, gas-jet igniting curtain; needless alarm.

Monday, 31st, 11–50 P.M. Still.

Allston. Freight car on B. & A. R.R.; cause unknown.

Appendix.

In addition to the alarms enumerated above, there were 138 bonfires during the month to which the department was called, 131 being still alarms and 7 bell alarms. The majority of these bonfires were July 3, 4, and 5.

AUGUST.

Tuesday, 1st, 0–32 P.M. Box 232.

No. 3 Edwards pl. Owned by J. A. Edwards; loss, $125; insurance, $1,200; occupied by H. Crossen, as dwelling; loss, $10; originated on 2d floor; cause, explosion of kerosene stove.

Remarks. — Mrs. Crossen was severely burned by burning oil.

Tuesday, 1st, 9–20 P.M. Still.

POPE ST. Cause, rubbish set on fire by boys.

Wednesday, 2d, 7–13 P.M. Box 72.

No. 1060 WASHINGTON ST. Cause, gas-jet igniting drapery; no damage.

Wednesday, 2d, 7–39 P.M. Box 432.

No. 65 SULLIVAN ST. Cause, upsetting kerosene stove; no damage.

Wednesday, 2d, 8–40 P.M. Box 17.

No. 69 WASHINGTON ST. Owned by Wilde estate; loss, $204; insurance, $12,500; occupied by C. Safford, as chemicals; originated on 4th floor; cause unknown.

Wednesday, 2d, 10–37 P.M. Still.

No. 844 E. BROADWAY. Owned by J. McIntyre; loss, $5; insurance, $5,000; occupied by J. McIntyre, as dwelling; loss, $27; insurance, $1,000; originated on 2d floor; cause, explosion of kerosene lamp.

Wednesday, 2d, 11–50 P.M. Still.

No. 16 KNEELAND ST. Owned by L. Ware; loss, $25; insurance, $15,000; occupied by M. J. McLaughlin, as restaurant; insurance, $2,000; originated on awning, 1st floor; cause, careless use of matches.

Thursday, 3d, 2–35 A.M. Box 73.

No. 3 UNION PARK ST. Owned by S. D. Whitmore, agent; loss, $176; insurance, $1,000; occupied by Len Soo, as laundry; loss, $25; originated in basement; cause, hot ashes in wooden barrel.

Thursday, 3d, 9–34 A.M. Box 635.

No. 265 PARIS ST.

Remarks. — A child of Joseph Hankard was fatally burned by igniting its clothing with coals pulled from stove.

Thursday, 3d, 11–30 A.M. Still.

No. 374 TREMONT ST. Cause, smoke from chimney mistaken for fire.

Thursday, 3d, 0–09 P.M. Box 9.

No. 1 WEBSTER PL. Cause, ignition of kerosene stove; no damage.

Thursday, 3d, 0–45 P.M. Still.

No. 33 GROVE ST. Cause, light from kerosene stove mistaken for fire.

Thursday, 3d, 1 P.M. Still.

No. 84 LEVERETT ST. Owned by C. Berry & Co.; loss, $25; insurance, $1,000; occupied by C. Berry & Co., as liquors; insurance, $1,000; originated on roof; cause, sparks from plumbers' furnace.

Thursday, 3d, 6–41 P.M. Box 61.

No. 18 INDIANA PL. Owned by M. E. Bramen; insurance, $5,000; occupied by J. F. Dorr, as dwelling; insurance, $1,500; originated in basement; cause, gas explosion.

Thursday, 3d, 7-52 P.M. Box 6.

No. 23 WILLARD ST. Owned by L. Silverman; loss, $125; insurance, $1,200; occupied by H. Pinansky, as dwelling; loss, $10; insurance, $500; originated on 2d floor; cause, ignition of naphtha gas.

Thursday, 3d, 8-33 P.M. Box 87.

No. 633 SHAWMUT AVE. Owned by G. P. French; insurance, $3,000; occupied by B. J. Thompson, as dwelling; loss, $10; originated on 3d floor; cause, gas-jet igniting curtain.

Friday, 4th, 5-30 A.M. Box 56.

Nos. 155 TO 159 BEACH ST. Owned by H. G. Hall; loss, $750; insurance, $10,000; occupied by A. Balkan, as tailor; loss, $306; insurance, $1,000; occupied by J. W. Simmons, as clothing; loss, $646; insurance, $9,000; occupied by J. Peary & Bros. *et als.*, as clothing; loss, $1,733; insurance, $18,700; originated on 2d floor; cause, unknown.

Friday, 4th, 0-30 P.M. Still.

No. 36 E. CHESTER PARK. Owned by Joshua Merrill; loss, $50; insurance, $7,000; occupied by J. Merrill, as dwelling; insurance, $3,500; originated on 1st floor; cause, spontaneous combustion.

Saturday, 5th, 8-56 P.M. Still.

CHESTNUT PL. Cause, soot in chimney burning.

Sunday, 6th, 2-24 A.M. Box 215.

No. 961 TREMONT ST. Owned by Luther Farwell; loss, $295; insurance, $4,000; occupied by M. A. Dolan, as grocery; loss, $325; insurance, $600; originated on 1st floor; cause unknown.

Sunday, 6th, 6-20 P.M. Box 219.

No. 176 WARD ST. Owned by M. Egan; loss, $86; insurance, $1,500; occupied by M. Egan, as dwelling; loss, $15; originated on roof; cause, struck by lightning.

Sunday, 6th, 6-33 P.M. Box 69.

No. 486 HARRISON AVE. Owned by C. H. Bacon; loss, $800; insurance, $20,000; occupied by Moore & Sweeney, as wood-workers; loss, $3,209; insurance, $14,300; originated on 4th floor; cause, struck by lightning.

Monday, 7th, 0-14 A.M. Still.

No. 63 LIVERPOOL ST. Owned by John Hurley; loss, $5; occupied by L. Zolles, as junk store; originated on 2d floor; cause, spontaneous combustion.

Monday, 7th, 4-37 A.M. Still.

ESSEX AND KINGSTON STS. Cause, slacking of lime; no damage.

Monday, 7th, 5-05 P.M. Still.

No. 107 SALEM ST. Owned by M. Levy; loss, $60; insurance, $17,000; occupied by M. Lubelsky, as paints, etc.; loss, $35; insurance, $750; originated on 1st floor; cause, ignition of benzine vapor.

Tuesday, 8th, 3-48 P.M. Box 521.

No. 50 CALL ST. Owned by B. F. Paige; loss, $10; insurance, $1,500; occupied by Norfolk Cleansing Company, as work-rooms; insurance, $500; originated on roof; cause, sparks from locomotive or chimney.

Tuesday, 8th, 4-30 P.M. Still.

No. 46 WAREHAM ST. Cause, defective automatic wires; accidental.

Tuesday, 8th, 5-10 P.M. Still.

No. 123 MERIDIAN ST. Owned by S. S. Hoffses; loss, $5; insurance, $3,000; occupied by Monroe & Davis, as boots and shoes; insurance, $4,500; originated in basement; cause, ignition of gas from leak in meter connections.

Tuesday, 8th, 5-14 P.M. Box 276.

No. 2336 WASHINGTON ST. Cause, smoke mistaken for fire.

Wednesday, 9th, 9-19 A.M. Box 644.

No. 143 EUTAW ST. Cause, ignition of kerosene stove; no damage.

Wednesday, 9th, 4 P.M. Box 521.

No. 195 GREEN ST. Owned by J. A. Dixon; loss, $425; insurance, $800. No. 8 UNION AVE. Owned by E. Rowen; loss, $56; insurance, $1,000; occupied by J. A. Dixon, as stable; loss, $69; insurance, $150; occupied by J. M. Coleman, as dwelling; originated on 1st floor, No. 195 Green st.; extended to No. 8 Union ave.; cause, children and matches.

Wednesday, 9th, 5-10 P.M. Still.

No. 11 BRATTLE ST. Owned by Goodwin & Rimbach; insurance, $12,500; occupied by Goodwin & Rimbach, as hotel; originated in basement; cause, sparks from furnace.

Wednesday, 9th, 5-25 P.M. Still.

No. 69 SALEM ST. Owned by J. Ginsberg; insurance, $4,500; occupied by M. Slobodkin, as dwelling; insurance, $600; originated on 3d floor; cause, children and matches.

Wednesday, 9th, 7-10 P.M. Still.

No. 67 INDIANA PL. Owned by R. Hill; loss, $20; insurance, $4,000; occupied by R. Hill, as dwelling; loss, $20; insurance, $3,000; originated on 2d floor; cause curtain igniting.

Wednesday, 9th, 10-13 P.M. Box 65.

No. 5 MOTTE ST. Owned by C. G. Way; insurance, $15,000; occupied by S. Callish & Co., as tailors; insurance, $1,500; originated on 4th floor; cause, unknown.

Thursday, 10th, 9-46 P.M. Box 4.

No. 115 HAVERHILL ST. Owned by B. R. Mitchell; occupied by J. M. Ballou, as restaurant; loss, $25; insurance, $800; originated in basement; cause unknown.

Thursday, 10th, 10-08 P.M. Box 68.

WAREHAM ST. Owned by J. J. McNutt; occupied by J. J. McNutt, as wood-worker; originated in basement; cause, sparks from fireplace.

Friday, 11th, 11-59 A.M. Box 5.

No. 52 Nashua st. Owned by James Driscoll; loss, $15; insurance, $2,500; occupied by James Driscoll, as dwelling; originated in basement; cause, defective chimney.

Saturday, 12th, 9-55 P.M. Box 56.

B. & A. Railroad yard. Cause, electric wires igniting woodwork of cable house. No damage.

Sunday, 13th, 1-35 A.M. Still.

No. 15 Cambridge st. Cause, cigar thrown from window on awning.

Sunday, 13th, 0-55 P.M. Still.

Geneva ave. Cause, set by boys in rubbish pile.

Sunday, 13th, 4-26 P.M. Box 978.

River st. Owned by Abbott Bros.; occupied by Abbott Bros., as ice-house; originated on 1st floor; cause unknown.

Sunday, 13th, 10-18 P.M. Box 86.

No. 1560 Washington st. Owned by L. McEntee; loss, $3; insurance, $6,000; occupied by John Foley, as dwelling; loss, $5; originated on 2d floor; cause, gas-jet igniting curtain.

Monday, 14th, 4-11 P.M. Box 458.

No. 478 Main st. Owned by Allen heirs; insurance, $3,500; occupied by J. McKean, as storage; loss, $25; originated on 1st floor; cause unknown.

Monday, 14th, 4-45 P.M. Box 541.

Canterbury st. Owned by M. J. Kenney; insurance, $300; occupied by T. F. Welch, as dwelling; originated in basement; cause, children and matches.

Monday, 14th, 8-13 P.M. Box 56.

No. 196 Kneeland st. Cause, smoke mistaken for fire. No damage.

Monday, 14th, 8-30 P.M. Still.

Mason st.
Remarks. — Ignition of fuel under boiler of Engine No. 26 from sparks left in fire-box.

Tuesday, 15th, 8-20 A.M. Still.

No. 4259 Washington st. Owned by Wm. Abe; insurance, $9,000; occupied by Wm. Abe, as groceries; insurance, $1,000; originated in basement; cause unknown.

Tuesday, 15th, 0-01 P.M. Box 416.

Nos. 88 and 90 Main st. Owned by J. Stone estate; loss, $50; insurance, $4,500; occupied by J. Lane *et als.*, as dwelling; originated on outside; cause, careless use of matches thrown in rubbish.

Tuesday, 15th, 1-10 P.M. Still.

Columbus ave. and Church st. Cause, electric motor igniting West End car.

Tuesday, 15th, 1-25 P.M. Still.

PARK SQ. Cause, electric motor igniting car of West End R.R.

Tuesday, 15th, 9-08 P.M. Box 64.

No. 72 SHAWMUT AVE. Owned by J. Cohen; loss, $175; insurance, $40,000; occupied by I. Sprigall, as clothing; loss, $175; insurance, $1,000; originated on 1st floor; cause unknown.

Wednesday, 16th, 2-15 A.M. Still.

No. 217 NORTH ST. Owned by Barnes estate; insurance, $4,500; occupied by J. F. Mansfield & Co., as leathers; insurance, $9,500; originated on 2d floor; cause, fireworks igniting woodwork.

Wednesday, 16th, 4-32 A.M. Box 648.

No. 308 LEXINGTON ST. Owned by A. Parow; loss, $2; insurance, $2,000; occupied by A. Parow, as dwelling; originated in basement; cause, spontaneous combustion in rags.

Wednesday, 16th, 8-33 A.M. Box 454.

No. 29 BEECHAM ST. Owned by B. F. Brown; insurance, $3,000; occupied by P. Geary *et als.*, as dwelling; loss, $10; originated on 3d floor; cause, careless smoking in bed.

Wednesday, 16th, 9-22 A.M. Box 65.

No. 52 OSWEGO ST. Cause, explosion of kerosene stove. No damage.

Wednesday, 16th, 11-20 A.M. Still.

No. 2 W. BROADWAY. Owned by J. E. Thacher; insurance, $3,500; occupied by E. Daly, as apothecary; loss, $21; insurance, $1,000; originated on 1st floor; cause, explosion of kerosene lamp.

Wednesday, 16th, 11-25 P.M. Still.

THIRD-ST. BRIDGE. Cause, sparks from locomotive igniting bridge.

Thursday, 17th, 10-45 A.M. Still.

No. 11 NORTH AVE. Owned by J. J. Fitzgerald; loss, $25; insurance, $3,000; occupied by J. J. Hoar, as dwelling; originated on 1st floor; cause, overheated steam-pipes.

Thursday, 17th, 11-18 A.M. Box 19.

Nos. 22 TO 28 CHARLESTOWN ST. Owned by A. Wentworth; insurance, $2,000; occupied by Holmes & Blanchard, as machinists; loss, $25; insurance, $24,000; originated on 6th floor; cause, spontaneous combustion.

Thursday, 17th, 0-14 P.M. Still.

CHELSEA BRIDGE. Cause, careless interference with automatic wires.

Thursday, 17th, 4-57 P.M. Still.

No. 7 COTTAGE PL. Owned by J. J. Mundo; loss, $150; insurance, $2,800; occupied by P. E. Keyes, as dwelling; originated on 1st floor; cause, hot ashes in wooden barrel.

Thursday, 17th, 9–30 P.M. Still.

No. 385 ATLANTIC AVE. *Remarks.*—Miss Laura A. Jefferson saturated her clothing with kerosene and set the same on fire, burning herself so badly that she died from her injuries. H. C. Barrett was severely burned while trying to extinguish the flames.

Friday, 18th, 1–56 A.M. Box 136.

E. THIRD, NEAR K ST. Owned by Bay State Iron Association; loss, $1,000; occupied by G. T. Lancaster, as wood-worker; insurance, $800; originated on 2d floor; cause unknown.

Friday, 18th, 6–03 P.M. Box 65.

No. 177 ALBANY ST. Cause, children and matches. No damage.

Saturday, 19th, 2–37 P.M. Still.

No. 145 TREMONT ST. Cause, matches thrown on awning.

Saturday, 19th, 3–55 P.M. Still.

No. 72 MONUMENT AVE. Owned by M. Kelly; loss, $10; insurance, $3,000; occupied by T. McCarthy, as dwelling; loss, $15; originated on 3d floor; cause, children and matches.

Saturday, 19th, 7–37 P.M. Box 634.

No. 171 BORDER ST. Cause, ignition of shavings in tire furnace.

Sunday, 20th, 8–05 A.M. Still.

No. 93 REVERE ST. Cause, back draught from chimney. No damage.

Sunday, 20th, 10–58 A.M. Box 856.

KINROSS ROAD. Cause, cloths igniting from stove pipe. No damage.

Sunday, 20th, 7–45 P.M. Still.

BARNES ST. Cause, set by boys in rubbish.

Sunday, 20th, 9–16 P.M. Box 416.

No. 55 MAIN ST. Cause, smoke from oven mistaken for fire.

Tuesday, 22d, 0–54 A.M. Box 245.

No. 1350 TREMONT ST. Owned by T. Sproule; loss, $325; insurance, $6,000; occupied by Bryan & Mitchell, as boots and shoes; loss, $175; insurance, $11,500; originated on 1st floor; cause unknown.

Tuesday, 22d, 6–05 P.M. Still.

No. 25 HARWICH ST. Owned by G. W. Whitten; loss, $25; insurance, $3,000; occupied by J. R. Bonner, as dwelling; loss, $5; originated in basement; cause unknown.

Wednesday, 23d, 10–55 A.M. Still.

No. 339 CHELSEA ST. Cause, smoke from stove mistaken for fire.

Wednesday, 23d, 7–56 P.M. Box 556.

Cause, false alarm.

Wednesday, 23d, 8–55 P.M. Still.

No. 88 MERIDIAN ST. Cause, upsetting kerosene lamp; no damage.

Thursday, 24th, 1–22 P.M. Box 127.

No. 5 BILL'S COURT. Cause, smoke from chimney mistaken for fire.

Thursday, 24th, 6–50 P.M. Still.

No. 69 WARWICK ST. Cause, children and matches; no damage.

Thursday, 24th, 8–50 P.M. Box 4.

No. 61 HAVERHILL ST. Owned by A. Wentworth; insurance, $1,500; occupied by Peterson & Co., as mouldings; insurance, $2,000; occupied by H. W. Robinson, as furniture; loss, $100; insurance, $1,000; occupied by Hartin Bros., as liquors; loss, $210; insurance, $1,500; originated on 3d floor; cause unknown.

Friday, 25th, 10–14 A.M. Box 263.

No. 31 CRANSTON ST. Cause, careless use of matches; no damage.

Friday, 25th, 0–35 P.M. Still.

No. 16 HOLBORN ST. Cause, back draught from chimney; no damage.

Friday, 25th, 2–30 P.M. Still.

No. 1 LINDELL COURT. Owned by C. H. Tipliff; insurance, $5,000; occupied by Alice West, as dwelling; loss, $20; originated on 1st floor; cause, curtain igniting from flat-iron.

Remarks. — Miss Alice West was slightly injured while trying to extinguish the flames.

Friday, 25th, 11.40 P.M. Still.

E. CHARLESGATE AND BEACON STS. Cause, spontaneous combustion in oily rags; no damage.

Saturday, 26th, 7–55 A.M. Still.

No. 245 FRIEND ST. Cause, smoke mistaken for fire.

Saturday, 26th, 2–10 P.M. Still.

No. 31 SCHOOL ST. Cause, light from kerosene stove mistaken for fire.

Saturday, 26th, 8–25 P.M. Box 71.

No. 36 DWIGHT ST. Owned by S. Strauss; loss, $95; insurance, $5,000; occupied by W. Gouch, as dwelling; loss, $100; insurance, $3,000; originated on 3d floor; cause unknown.

Sunday, 27th, 6–15 A M. Still.

No. 480 BROADWAY. Cause, gas-jet igniting woodwork; no damage.

Sunday, 27th, 1–45 P.M. Box 6.

No. 9 BARTON ST. Owned by M. L. Hootstein; loss, $25; insurance, $9,000; occupied by J. Lavine, as dwelling; originated on 2d floor; cause, upsetting kerosene stove.

Sunday, 27th, 3–55 P.M. Still.

HEAD PL. Cause, ignition of rubbish in ash-can in street.

Sunday, 27th, 5-45 P.M. Still.

Eastern railroad wharf. Cause, bursting of steam-pipe on tow-boat "Curlew."

Sunday, 27th, 8-43 P.M. Still.

No. 3 Lemont st. Owned by T. Reilley; loss, $25; insurance, $2,000; occupied by A. S. Nyman, as dwelling; loss, $20; insurance, $500; originated on 2d floor; cause, careless use of matches.

Monday, 28th, 9-50 A.M. Still.

No. 315 Sumner st. Cause, defective chimney; no damage.

Monday, 28th, 8-47 P.M. Still.

No. 70 Broad st. Cause, cigar thrown on awning.

Tuesday, 29th, 12 M. Still.

Alford st. Cause, electric wires igniting bridge.

Tuesday, 29th, 0-06 P.M. Box 144.

No. 797 East Third st. Cause, soot in chimney burning.

Tuesday, 29th, 4-36 P.M. Box 6.

No. 87 Leverett st. Owned by H. Frye; loss, $175; insurance, $7,400; occupied by J. Winstein, as dwelling; insurance, $500; originated on 2d floor; cause, unknown.

Tuesday, 29th, 4-45 P.M. Still.

Old Harbor and Eighth sts. Cause, set by boys in hollow tree.

Tuesday, 29th, 5-21 P.M. Box 212.

No. 57 Hampden st. Cause, smoke mistaken for fire.

Tuesday, 29th, 6-58 P.M. Still.

No. 531 Dorchester ave. Cause, overheated stove-pipe; no damage.

Tuesday, 29th, 8 P.M. Still.

No. 185 Chelsea st. Cause, soot in chimney burning.

Tuesday, 29th, 9 P.M. Still.

No. 928 Tremont st. Owned by D. Thayer; insurance, $5,000; occupied by J. Caller, as dwelling; loss, $8; insurance, $1,000; originated on 3d floor; cause, upsetting kerosene lamp.

Wednesday, 30th, 8-58 A.M. Box 639.

No. 197 London st. Owned by E. Sloan; insurance, $2,500; occupied by A. McCormack, as dwelling; loss, $5; originated on 2d floor; cause, rats and matches.

Wednesday, 30th, 10-40 A.M. Still.

No. 49 A st. Cause, children and matches; no damage.

Wednesday, 30th, 6–45 P.M. Box 618.

No. 10 COTTAGE ST. Owned by P. Judge; loss, $80; insurance, $3,500; occupied by Geo. Kimler, as dwelling; loss, $200; insurance, $1,500; occupied by R. Smith, as dwelling; loss, $13; insurance, $1,500; originated on 1st floor; cause, upsetting kerosene lamp.

Thursday, 31st, 3–30 A.M. Box 157.

No. 246 GOLD ST. Owned by A. Mitchell; loss, $129; insurance, $3,000; occupied by B. J. McNally, as dwelling; insurance, $600; originated on 2d floor; cause, rats and matches.

Thursday, 31st, 2–42 P.M. Box 65.

No. 153 ALBANY ST. Cause, hot ashes in wooden barrel; no damage.

Thursday, 31st, 3–24 P.M. Box 5.

No. 44 LOWELL ST. Owned by S. Livingstone; loss, $43; insurance, $4,977; occupied by S. Livingstone, as dwelling; originated on 4th floor; cause, children and matches.

Thursday, 31st, 6–45 P.M. Still.

DUDLEY AND HAMPDEN STS. Cause, electric motor igniting car of West End Road; damage, $15.

Thursday, 31st, 8–06 P.M. Box 5.

No. 48 LOWELL ST. Owned by I. Moskovtze; loss, $25; insurance, $4,000; occupied by Krensky & Moskovtze, as groceries; loss, $150; insurance, $1,800; originated in basement; cause, careless use of matches.

Thursday, 31st, 8–14 P.M. Box 68.

No. 439 ALBANY ST. Owned by West End Corporation; occupied by West End Corporation, as oil storage; originated on 1st floor; cause, unknown.

Thursday, 31st, 8–30 P.M. Box 835.

HILL ST. Owned by James Muldoon; loss, $50; occupied by James Muldoon, as tool-house; loss, $100; originated on 1st floor; cause unknown.

SEPTEMBER.

Friday, 1st, 8–50 A.M. Still.

No. 1245 WASHINGTON ST. Owned by D. J. Puffer; loss, $50; insurance, $8,000; occupied by M. Kane, as dwelling; loss, $41; insurance, $1,000; originated on 3d floor; cause, gas-jet igniting curtain.

Friday, 1st, 4–58 P.M. Box 186.

No. 771 DORCHESTER AVE. Owned by T. Lane; loss, $169; insurance, $4,000; occupied by A. Rolland, as dwelling; loss, $135; insurance, $800; originated on 2d floor; cause, ignition of kerosene stove.

Friday, 1st, 7–07 P.M. Box 617.

GRAND. JUNCTION WHARF.

Remarks. — Spontaneous combustion in oily waste on board grain elevator "Nile," owned by Boston Tow Boat Company, lying at the wharf; damage, $600; insurance, $24,000.

Friday, 1st, 7-50 P.M. Box 125.

No. 265 Dorchester ave. Owned by L. E. Jones; loss, $15; occupied by C. W. Doyle, as blacksmith; originated on 1st floor; cause, sparks from forge.

Friday, 1st, 8-40 P.M. Still.

No. 844 Albany st. Owned by Sullivan Bros.; occupied by J. McKee, as dwelling; originated in basement; cause, children and matches.

Friday, 1st, 9-07 P.M. Still.

No. 289 West Chester park. Owned by Hazen estate; loss, $16; insurance, $15,000; occupied by A. H. Sullivan *et als.*, as dwelling; loss, $30; insurance, $3,000; originated in basement; cause, spontaneous combustion.

Saturday, 2d, 11-20 A.M. Still.

No. 11 Grove st. Owned by S. Wheeler; loss, $10; occupied by L. Ruffan, as dwelling; originated on 1st floor; cause, rats and matches.

Saturday, 2d, 6-30 P.M. Still.

No. 3 Sun Court st. Owned by M. A. Dolan; insurance, $1,500; occupied by D. Magno *et als.*, as dwelling; loss, $2, originated on 3d floor; cause, mice and matches.

Saturday, 2d, 8-04 P.M. Box 114.

No. 209 West Second st. Owned by P. Doyle; loss, $5; insurance, $3,000; occupied by P. Doyle, as dwelling; originated on 2d floor; cause, upsetting kerosene lamp.

Sunday, 3d, 0-12 P.M. Box 216.

No. 49 Ward st. Owned by Wm. J. Stevens; loss, $200; unoccupied stable; cause, supposed incendiary.

Sunday, 3d, 8-15 P.M. Still.

No. 48 Phillips st. Owned by R. W. Light; loss, $10; insurance, $2,000; occupied by F. G. Mahoney, as dwelling; originated on 1st floor; cause, defective chimney.

Monday, 4th, 8-18 A.M. Box 75.

No. 348 Shawmut ave. Owned by J. Maguire; loss, $227; insurance, $9,000; occupied by J. Maguire, as dwelling; loss, $533; insurance, $1,500; originated on 2d floor; cause unknown.

Remarks. — Lieutenant Smith and Ladderman Harvey were injured by being thrown from Chemical Engine No. 2 while responding to this alarm.

Monday, 4th, 10-15 A.M. Still.

No. 100 Portland st. Cause, needless; no fire.

Monday, 4th, 0-20 P.M. Box 129.

Dorchester ave.

Remarks. — Sparks from locomotive igniting roof of shed for storage of hand-car on Old Colony R.R.; no damage.

Monday, 4th, 6-10 P.M. Still.

Magazine and Eustis sts. Cause, bonfire set by boys.

Tuesday, 5th, 0–47 A.M. Box 54.

NO. 32½ HARRISON AVE. Owned by J. Dickerman; loss, $5; insurance, $8,500; occupied by Quing Sang Lung, as teas, etc.; originated in basement; cause, explosion of gasoline stove.

Tuesday, 5th, 3–22 A.M. Box 65.

NO. 317 HARRISON AVE. Owned by Louis Ginsberg; loss, $523; insurance, $8,500; occupied by Kasanoff & Co., as bakery; loss, $220; insurance, $800; originated in basement; cause, overheated baker's oven.

Tuesday, 5th, 4–56 A.M. Box 461.

NO. 11 CALDWELL ST. Owned by J. Fisher; loss, $21; insurance, $300; occupied by John Fisher, as cooper; loss, $10; insurance, $300; originated on 1st floor; cause unknown.

Tuesday, 5th, 7–38 A.M. Still.

NO. 70 BROAD ST. Cause, ignition of gasoline vapor; no damage.

Tuesday, 5th, 9–30 A.M. Still.

NO. 10 CHURCH ST. Cause, smoke from stove mistaken for fire.

Tuesday, 5th, 10–25 A.M. Still.

NO. 548 WASHINGTON ST. Cause, careless use of matches in rubbish; no damage.

Tuesday, 5th, 10–30 A.M. Still.

NO. 555 WASHINGTON ST. Cause, match thrown on awning; no damage.

Tuesday, 5th, 8–20½ P.M. Box 49.

NOS. 45 AND 47 FRANKLIN ST. Owned by Simmons estate; loss, $2,993; insurance, $200,000; occupied by Boston Bank Note Company, as engravers; loss, $8,000; insurance, $23,000; occupied by Wm. Ames, as designer; loss, $750; insurance, $750; originated on 3d floor; cause unknown.

Tuesday, 5th, 8–55 P.M. Box 62.

NOS. 23 AND 25 PIEDMONT ST. Owned by M. M. Fittie; occupied by J. F. Gordon, as grocery, etc.; loss, $700; insurance, $700; occupied by M. Brooks, as dwelling; loss, $100; insurance, $600; originated on 1st floor; cause unknown.

Tuesday, 5th, 9–30 P.M. Still.

NO. 26 KNEELAND ST. Owned by B. C. Hincke; insurance, $20,000; occupied by P. Stewart, as restaurant; loss, $16; insurance, $1,650; originated on 1st floor; cause, gas stove igniting woodwork.

Tuesday, 5th, 9–37 P.M. Box 125.

NO. 393 DORCHESTER AVE. Owned by G. H. Billings; loss, $75; occupied by G. H Billings, as steel works; originated on 1st floor; cause, overheated furnace.

Remarks. — Ladderman M. Norton of H. & L. No. 5 was slightly injured by coming in collison with an iron stay.

Wednesday, 6th, 10–20 A.M. Still.

No. 17 West Dedham st. Owned by M. Smith; loss, $10; insurance, $6,000; occupied by L. Marshall, as dwelling; loss, $32; insurance, $1,500; originated on 4th floor; cause unknown.

Wednesday, 6th, 0–21 P.M. Box 636.

No. 169 Paris st. Cause, boys setting fire to hen-house; damage, $10.

Wednesday, 6th, 1–30 P.M. Still.

Dartmouth-st. Bridge. Cause, sparks from locomotive; no damage.

Wednesday, 6th, 2–30 P.M. Still.

No. 34 Worcester st. Owned by J. O'Shea; occupied by S. Jackson, as dwelling; originated in basement; cause unknown; no damage.

Wednesday, 6th, 7–25 P.M. Box 317.

Bird-st. Station, N. Y. & N. E. R.R. Cause, breaking kerosene lamp; needless alarm.

Wednesday, 6th, 8–58 P.M. Box 214.

No. 2054 Washington st. Owned by J. F. Bush; loss, $9; insurance, $7,500; occupied by A. Lavine, as grocery; loss, $75; insurance, $1,000; originated on 1st floor; cause, breaking kerosene lamp.

Thursday, 7th, 0–35 A.M. Still.

Harrison ave. Cause, bonfire set by boys.

Thursday, 7th, 1–34 A.M. Box 823.

Grant pl. Owned by A. Hill; loss, $75; insurance, $1,000; occupied by A. Hill, as dwelling; loss, $25; originated on 2d floor; cause, unknown.

Thursday, 7th, 7–40 P.M. Still.

No. 9 Tremont row. Cause, soot in chimney burning; no damage.

Friday, 8th, 3–15 A.M. Still.

No. 129 Warren ave. Cause, smoke from chimney mistaken for fire.

Friday, 8th, 9–30 A.M. Still.

Remarks. — Steam from a coal pile in the yard of the House of Correction mistaken for fire.

Friday, 8th, 10–32 A.M. Still.

No. 50 Washington st. Cause, overheated thermostat.

Friday, 8th, 10–36 A.M. Still.

No. 71½ High st. Owned by J. Jacobs; insurance, $1,500; occupied by S. Powers, as cobbler shop; loss, $10; originated on 1st floor; cause, careless use of pipe.

Friday, 8th, 4–37 P.M. Still.

Market-st. bridge. Cause, sparks from locomotive igniting bridge; no damage.

Friday, 8th, 9–05½ P.M. Box 263.

No. 2 PERKINS ST. Owned by N. Curtis heirs; loss, $2,350; insurance, $6,500; occupied by S. H. Kimball, as dwelling; loss, $3,178; insurance, $2,000; originated on 1st floor; cause unknown.

Friday, 8th, 9–40 P.M. Box 6.

No. 124 LEVERETT ST. Cause, careless use of candle; no damage.

Saturday, 9th, 0–14 A.M. Box 129.

No. 222 FOUNDRY ST. Owned by J. L. Jones; loss, $290; insurance, $3,000; unoccupied dwelling; originated on 1st floor; cause, incendiary.

Remarks. — Ladderman Griffin of H. & L. No. 5 slightly injured his wrist.

Saturday, 9th, 7–29 A.M. Still.

No. 3 HILLSIDE PL. Owned by Niles Bros.; loss, $5; insurance, $1,600; occupied by W. H. Whiting, as dwelling; originated on 3d floor; cause, upsetting kerosene stove.

Saturday, 9th, 10–41 A.M. Box 853.

FOSTER ST. Cause, bonfire, burning rubbish.

Saturday, 9th, 8–10 P.M. Box 436.

No. 6 MARSHALL PL. Owned by J. F. Bastin; loss, $25; insurance, $1,000; occupied by R. Hennessey, as dwelling; originated on 3d floor; cause, breaking kerosene lamp.

Saturday, 9th, 8–59 P.M. Box 227.

No. 32 GEORGE ST. Cause, spontaneous combustion; no damage.

Sunday, 10th, 0–40 A.M. Still.

No. 27 ALGER ST. Cause, breaking lighted lantern; no damage.

Sunday, 10th, 4–50 A.M. Still.

So. BOSTON FLATS, BOSTON HARBOR.

Remarks. — Slacking of cargo of lime on board the schooner "Willie G.," owned by Thomas Gould, of Boothbay, Me.; damage to cargo, $150; damage to schooner unknown.

Sunday, 10th, 10–52 A.M. Still.

No. 4 PEPPERELL PL. Owned by Wm. B. Harding; loss, $5; insurance, $2,500; occupied by C. Cronin, as dwelling; loss, $10; originated on 3d floor; cause, careless use of pipe.

Sunday, 10th, 2–41 P.M. Still.

No. 10 WILLARD PL. Owned by J. S. Gill; loss, $15; insurance, $5,000; occupied by E. Dennie, as dwelling; loss, $10; insurance, $1,000; originated on 3d floor; cause, gas stove igniting woodwork.

Sunday, 10th, 4 P.M. Still.

No. 42 PIEDMONT ST. Cause, smoke from kerosene stove.

Sunday, 10th, 6–21 P.M. Box 12.

No. 21 COOPER ST. Cause, dropping kerosene lamp; no damage.

Sunday, 10th, 6-44 P.M. Box 651.

Bennington st. Cause, bonfire, set by boys.

Sunday, 10th, 6-59 P.M. Box 24.

No. 20 Blossom st. Cause, ignition of kerosene stove; no damage.

Sunday, 10th, 7-28 P.M. Still.

No. 61 Salem st. Owned by Ginsberg estate; loss, $13; insurance, $2,000; occupied by S. Kaparonski, as dwelling; loss, $20; originated on 1st floor; cause, candle igniting curtain.

Sunday, 10th, 7-35 P.M. Still.

No. 26 Prince st. Owned by J. Lythgoe; loss, $10; insurance, $2,500; occupied by L. Finklestein, as dwelling; originated on 3d floor; cause, candle igniting woodwork.

Monday, 11th, 8-30 A.M. Still.

No. 95 Orleans st. Owned by J. F. McCrystal; loss, $45; insurance, $1,800; occupied by J. J. Toohig, as grocer; loss, $5; insurance, $700; originated on 1st floor; cause, careless use of kerosene oil.

Monday, 11th, 8-45 A.M. Still.

No. 7 Bartlett pl. Cause, sparks from chimney igniting drapery; no damage.

Monday, 11th, 0-16 P.M. Box 648.

No. 278 East Eagle st. Owned by Jewett Lumber Company; loss, $30; insurance, $4,000; occupied by H. Edwards, as dwelling; originated on 2d floor; cause, defective flue.

Monday, 11th, 0-45 P.M. Still.

No. 26 Franklin st. Owned by Samuel Hano; loss, $15; occupied by Samuel Hano, as office; originated on awning; cause, sparks from locomotive.

Monday, 11th, 6-37 P.M. Still.

A st. Cause, bonfire, set by boys.

Monday, 11th, 9-21 P.M. Box 24.

No. 14 Parkman st. Cause, upsetting kerosene stove; no damage.

Tuesday, 12th, 3-42 P M. Box 451.

No. 94 Medford st. Owned by C. O. Raymond; loss, $20; insurance, $1,800; occupied by J. Rogers, as dwelling; originated in basement; cause unknown.

Remarks. — Engineman Gallagher, of Engine No. 36, slightly injured in foot by chuck.

Tuesday, 12th, 8-05 P.M. Still.

No. 27 Leverett st. Cause, match thrown on awning; no damage.

Wednesday, 13th, 2-48 A.M. Still.

Milton, Mass. Cause, call for aid from Milton; Engine No. 16 responded.

Wednesday, 13th, 5-16 P.M. Box 62.

No. 22 PARK SQ. Owned by Lawrence heirs; insurance, $60,000; occupied by Crawford Shoe Company, as salesroom; loss, $40; insurance, $11,000; originated on awning; cause, matches thrown from window.

Wednesday, 13th, 5-30 P.M. Still.

No. 37 DECATUR ST. Owned by F. Casey; insurance, $2.000; occupied by E. M. Gorman, as grocery; loss, $15; insurance, $7,500; originated on 1st floor; cause, breaking kerosene lamp.

Wednesday, 13th, 6-10 P.M. Still.

No. 8 CUSHMAN AVE. Cause unknown; no damage.

Wednesday, 13th, 9-55 P.M. Still.

No. 1222A WASHINGTON ST. Cause, brick falling in chimney flue; no fire.

Thursday, 14th, 6-59 A.M. Still.

No. 1 BARTLETT PL. Owned by N. Freedman; insurance, $4,500; occupied by N. Pinofsky, as dwelling; loss, $5; originated on 3d floor; cause, ignition of kerosene stove while filling.

Thursday, 14th, 4-08 P.M. Box 13.

No. 10 LANGDON PL. Cause, careless use of pipe in clothing. No damage.

Thursday, 14th, 5-14 P.M. Box 62.

No. 134 ELIOT ST. Owned by A. L. Hollingsworth; loss, $107; insurance, $3,433; occupied by E. W. Seldon, as carpenter; loss, $147; insurance, $1,000; occupied by A. McInness, as painter; loss, $3; insurance, $600; originated on 2d floor; cause, careless use of naphtha.

Thursday, 14th, 8-15 P.M. Box 65.

No. 115 ALBANY ST. Cause, breaking of kerosene lamp. No damage.

Friday, 15th, 1-15 A.M. Still.

No. 673 SARATOGA ST. Owned by J. McCormack; loss, $2; insurance, $3,000; unoccupied dwelling; originated on 2d floor; cause, incendiary.

Friday, 15th, 10-05 A.M. Still.

No. 35 PORTER ST. Cause, ignition of kerosene stove.

Friday, 15th, 1-40 P.M. Still.

TREMONT ST. Cause, electric motor igniting car of West End R.R.

Friday 15th, 3-46 P.M. Box 16.

No. 28 UNION ST. Owned by D. W. Cushing; loss, $10; insurance, $4,000; occupied by D. W. Cushing & Co., as stoves, etc.; originated in basement; cause, breaking kerosene lamp.

Saturday, 16th, 1-35 A.M. Still.

No. 48 LINWOOD ST. Cause unknown, grass fire. No damage.

Saturday, 16th, 4-28 P.M. Box 421.

No. 5 CHELSEA ST. Owned by P. O'Riordan; insurance, $8,000; occupied by J. Twohig, as dwelling; originated on 4th floor; cause unknown. No damage.

Saturday, 16th, 8-15 P.M. Still.

POPLAR ST. Cause, bonfire in hollow tree.

Saturday, 16th, 8-37 P.M. Box 457.

False alarm.

Saturday, 16th, 11-10 P.M. Still.

No. 167 HANOVER ST. Cause, electric wire igniting rubbish. No damage.

Sunday, 17th, 7-50 P.M. Still.

No. 288 HANOVER ST. Owned by William Ross; insurance, $6,500; occupied by M. Slutzky, as furnishing goods; loss, $25; originated on awning; cause, match or cigar thrown from window.

Monday, 18th, 2-20 A.M. Still.

No. 256 FEDERAL ST. Cause, tramp baking potatoes under the stable.

Monday, 18th, 8-10 A.M. Box 56.

Remarks. — Explosion of "Pintsch" gas tank in car of N. Y., N. H. & H. R.R., Kneeland-street depot. No fire.

Monday, 18th, 1-30 P.M. Still.

No. 5 GROTON ST. Overheated boiler. No fire.

Monday, 18th, 9-28 P.M. Box 363.

SPENCER ST.
Remarks. — Fire in hay-stack owned by M. O'Connell; damage, $25; no insurance; cause, incendiary.

Tuesday, 19th, 6-50 A.M. Still.

COTTAGE FARM BRIDGE. Cause, sparks from locomotive igniting bridge. No damage.

Tuesday, 19th, 6-27 P.M. Box 5.

No. 73 LOWELL ST. Owned by M. Levine; loss, $75; insurance, $4,000; occupied by S. Hirsfeld, as dwelling; loss, $99; insurance $600; originated on 2d floor; cause, breaking kerosene lamp.

Tuesday, 19th, 6-30 P.M. Box 6.

Given for previous fire at No. 73 Lowell st. Needless.

Tuesday, 19th, 9-30 P.M. Box 57.

No. 57 HARVARD ST. Cause, breaking kerosene lamp. No damage.

Wednesday, 20th, 5-20 P.M. Still.

No. 15 PITTS ST. Owned by T. Burns; loss, $15; insurance, $8,000; occupied by T. Burns, as dwelling; loss, $55; insurance, $1,800; originated on 1st floor; cause unknown.

Wednesday, 20th, 6-55 P.M. Still.

No. 196 KNEELAND ST. Cause, cigar or match thrown on cloth sign. No damage.

Wednesday, 20th, 9 P.M. Still.

PORTER ST. Cause, bonfire, set by boys.

Wednesday, 20th, 9-30 P.M. Still.

No. 1 CHAMBERS ST. Owned by J. B. Osborn; occupied by A. Yeretsky, as tailor; loss, $15; insurance, $4,000; originated on 2d floor; cause, spontaneous combustion in oily rags.

Thursday, 21st, 0-30 P.M. Still.

No. 274 BUNKER HILL ST. Cause, naphtha lamp igniting woodwork. No damage.

Thursday, 21st, 9-15 P.M. Still.

WARREN AVE. Cause, bonfire to burn rubbish.

Friday, 22d, 4 P.M. Still.

No. 2 JEFFERSON PL. Cause, boys setting fire to waste paper. No damage.

Friday, 22d, 6-31 P.M. Box 6.

No. 70 BRIGHTON ST. Cause, candle igniting window curtain. No damage.

Friday, 22d, 10-06 P.M. Box 96.

COLUMBUS AVE. Cause, falling of trolley wire of West End road. No fire.

Friday, 22d, 11-59 P.M. Still.

No. 69 CHARLESTOWN ST. Cause, sparks igniting ashes under boiler furnace. No damage.

Saturday, 23d, 0-20 P.M. Still.

PRINCE ST. Cause, boys setting fire to kerosene in the street.

Saturday, 23d, 8-30 P.M. Still.

No. 104 DOVER ST. Cause, gas-jet igniting woodwork. No damage.

Saturday, 23d, 8-59 P.M. Box 465.

CRESCENT AVE. Owned by A. Young; loss, $400; insurance, $800; owned by H. Cousens; loss, $45; insurance, $800; occupied by A. Young, as stable; loss, $943; insurance, $1,400; occupied by O. Haskell, as stable; loss, $200; insurance, $500; occupied by A. Folsom *et als.*, as stable; loss, $75; insurance, $950; originated on 1st floor, extended to adjoining building; cause unknown.

Sunday, 24th, 12 M. Still.

No. 436 HARRISON AVE. Cause, bonfire to burn rubbish.

Sunday, 24th, 5-26 P.M. Box 6.

BARTON COURT. Cause, boys burning old mattress in open lot.

Sunday, 24th, 10-09 P.M. Still.

U.S. HOTEL, BEACH ST. Cause, automatic alarm.

Monday, 25th, 1-45 P.M. Box 71.

No. 485 TREMONT ST. Owned by Wm. Minot, trustee; loss, $819; insurance, $6,000; occupied by P. Wentzel, as naphtha cleansing; loss, $300; occupied by A. Wilson, as dwelling; loss, $100; originated on 1st floor; cause, gas-jet igniting naphtha vapor.

Remarks. — Mr. Wentzel was severely, and Ladderman Hines of H. & L. No. 17, slightly burned.

Monday, 25th, 8-52 P.M. Box 16.

No. 25 DOCK SQ. Cause, electric wire igniting awning; no damage.

Tuesday, 26th, 6-03 A.M. Box 413.

No. 58 AUSTIN ST. Owned by S. R. Mann estate; loss, $20; insurance, $1,500; occupied by M. Flannagan, as dwelling; originated on 2d floor; cause, children and matches.

Tuesday, 26th, 11-45 A.M. Still.

No. 31 NEW WALNUT PARK. Owned by Holmes Brothers; loss, $10; insurance, $3,000; occupied by Wm. George, as dwelling; loss, $5; originated on 2d floor; cause, careless use of matches.

Tuesday, 26th, 4-29 P.M. Box 236.

No. 225 VERNON ST. Owned by Geo. Lenth; loss, $306; insurance, $4,000; unoccupied store; originated on 1st floor; cause, ignition of gasoline furnace.

Tuesday, 26th, 5-10 P M. Still.

No. 16 CROSS ST. Cause, matches thrown in rubbish; no damage.

Tuesday, 26th, 10-08 P.M. Still.

TREMONT ROW. Cause, electric motor igniting car.

Tuesday, 26th, 10-45 P.M. Still.

No. 63 LOWELL ST. Cause, explosion of kerosene lamp; no damage.

Wednesday, 27th, 6-17 A.M. Box 78.

No. 82 E. BROOKLINE ST. Owned by L. Pokiorsky; loss, $12; insurance, $4,000; occupied by L. Pokiorsky, as dwelling; loss, $18; insurance, $1,000; originated on 2d floor; cause, unknown.

Wednesday, 27th, 8-09 A.M. Still.

Cause, round on tapper, Box 52.

Wednesday, 27th, 10-21 A.M. Box 416.

No. 50 PLEASANT ST. Owned by J. R. Murphy; loss, $20; insurance, $3,000; occupied by J. I. Quigley *et als.*, as dwelling; loss, $53; insurance, $8,000; originated on 1st floor; cause, children and matches.

Wednesday, 27th, 11-58 A.M. Box 7.

No. 23 SPRING ST. Cause, boys setting fire to rubbish; no damage.

Wednesday, 27th, 5-48 P.M. Still.

No. 6 N. HUDSON ST. Owned by H. F. Sheeran; loss, $30; insurance, $3,000; occupied by P. Lees, as dwelling; loss, $10; originated in basement; cause, set by boys.

Wednesday, 27th, 6–15 P.M. Still.

No. 81 MAVERICK ST. Owned by E. Sloan; insurance, $2,500; occupied by E. Sloan, as dwelling; loss, $25; originated on 2d floor; cause, soot from chimney igniting sofa.

Wednesday, 27th, 6–19 P.M. Box 136.

No. 4 BAY STATE PL. Cause, upsetting kerosene lamp; no damage.

Wednesday, 27th, 7 P.M. Still.

No. 54 STANHOPE ST. Cause, burning paper in furnace; no fire.

Wednesday, 27th, 8–11 P.M. Box 57.

No. 48 HUDSON ST. Cause, breaking kerosene lamp; no damage.

Wednesday, 27th, 9–22 P.M. Still.

No. 23 SPRING ST. Cause, boys setting fire to rubbish; no damage.

Thursday, 28th, 0–50 A.M. Box 54.

No. 19½ BEACH ST. Owned by P. Fahey; loss, $129; insurance, $4,000; occupied by W. C. Bulvan, as carpenter; loss, $225; insurance, $900; originated on 3d floor; cause, unknown.

Thursday, 28th, 1–30 P.M. Still.

No. 269 COMMERCIAL ST. Owned by G. W. Taylor; insurance, $10,000; occupied by J. Folsom, as apothecary; loss, $18; insurance, $2,500; originated on awning; cause, cigar or match thrown from window.

Thursday, 28th, 6–25 P.M. Still.

TREMONT ROW. Cause, electric motor igniting car of West End R.R.

Thursday, 28th, 9–50 P.M. Still.

No. 127 CENTRE ST. Cause, gas-jet igniting curtain; no damage.

Friday, 29th, 2–56 A.M. Box 53.

No. 5 ROWE PL. Owned by E. Sears; loss, $541; insurance, $4,000; occupied by A. C. Cohen, as shirt factory; loss, $4,500; insurance, $9,000; originated on 1st floor; cause unknown.

Friday, 29th, 8–22 A.M. Box 87.

No. 10 DILLON ST. Cause, children and matches; no damage.

Friday, 29th, 8–22 A.M.

Cause, defective winding from Box 87 received Box 57.

Friday, 29th, 3–39 P.M. Box 24.

No. 14 PARKMAN ST. Cause, upsetting kerosene stove; no damage.

Friday, 29th, 5–25 P.M. Still.

No. 9 KNOX ST. Cause, smoke from kerosene lamp.

Friday, 29th, 6–45 P.M. Still.

No. 74 BOYLSTON ST. Cause, light mistaken for fire.

Friday, 29th, 9–14 P.M. Box 56.

No. 302 FEDERAL ST. Cause, lamp igniting naphtha vapor.

Saturday, 30th, 3–20 A.M. Still.

KNEELAND-ST. DEPOT. Cause, overheated oven; no damage.

Saturday, 30th, 11–10 A.M. Still.

No. 436 HARRISON AVE. Cause, bonfire, set by boys.

Saturday, 30th, 5–50 P.M. Still.

No. 436 HARRISON AVE. Cause, bonfire, set by boys.

Saturday, 30th, 6 P.M. Still.

HOLLAND ST. Cause, bonfire in pile of brush.

OCTOBER.

Sunday, 1st, 3–13 A.M. 2d alarm, 3–23 A.M. Box 84.

No. 483 BEACON ST. Owned by C. W. Claggett; loss, $4,000; insurance, $25,000; occupied by J. R. Fuller, as dwelling; originated in basement; cause, supposed spontaneous combustion.

Sunday, 1st, 9–40 A.M. Still.

No. 80 COTTAGE ST. Owned by Mrs. Ann McKillope; loss, $5; insurance, $1,000; occupied by Wm. Whalen, as dwelling; originated on cellar floor; cause, kerosene lamp fell on hot stove and broke.

Sunday, 1st, 6–45 P.M. Still.

No. 30 EUSTIS ST. Owned by A. C. Paul; occupied by A. C. Paul, as dwelling; originated in chimney; cause, foul chimney filling house with smoke.

Remarks. — No fire.

Sunday, 1st, 9–40 P.M. Still.

No. 55 MAIN ST. Owned by E. J. Clous estate; insurance, $1,600; occupied by Annie Keaney, as bakery; insurance, $1,300; needless.

Sunday, 1st, 10–11 P.M. Box 416.

Nos. 91 AND 93 MAIN ST. Owned by B. F. Austin estate; loss, $25; owned by J. Mumler; loss, $15; insurance, $1,500; occupied by B. F. Webster, as shoe store; insurance, $3,000; occupied by J. Mumler, as ice-cream saloon; insurance, $3,000; originated on outside of building; cause unknown.

Sunday, 1st, 11–21 P.M. Box 64.

No. 5 ORANGE LANE. Owned by Michael J. O'Brien; loss, $25; insurance, $666; occupied by Michael Higgins, as dwelling; originated on 2d floor; cause unknown.

Monday, 2d, 7–25 A.M. Box 42.

Nos. 35 TO 41 WINTER ST. Owned by Dr. Inches *et als.*; occupied by D. Conrad & Son, as dress goods; originated on outside of building in switch box; cause, short circuit; needless alarm.

Monday, 2d, 9 A.M. Still.

No. 6 BUCKINGHAM PL. Originated in chimney; cause, burning out; needless.

Monday, 2d, 1-15 P.M. Still.

No. 5 MORTON ST. Owned by Moses Caupleman; insurance, $3,500; occupied by Moses Caupleman, as tenement; originated in basement; cause, lighted kerosene-oil lamp set fire to water-closet.

Monday, 2d, 2-30 P.M. Still.

No. 5 No. MARGIN ST. Owned by J. Rubinovitz; insurance, $1,500; occupied by J. Deutch, as dry goods; insurance, $1,000; originated on first floor, back room; cause, baked beans burning in stove.

Tuesday, 3d, 12-32 A M. Box 435.

No. 425 MEDFORD ST. Owned by Philadelphia & Boston Brick Company; insurance, $4,000; vacant; originated on steam-box; cause, sparks from locomotive.

Tuesday, 3d, 6-05 A.M. Still.

B. & A. FREIGHT YARD. Owned by B. & A. R.R. Corporation; occupied by B & A. R.R. Corporation, as freight car; originated in car; cause, hot-box.

Tuesday, 3d, 7-15 A.M. Still.

No. 372 BUNKER HILL ST. Owned by George T. Lenord; loss, $2; vacant; originated on first floor; cause, rats and matches.

Tuesday, 3d, 10-30 A.M. Still.

TAYLOR ST. Owned by A. T. Stearns Company; occupied by A. T. Stearns Company, as storehouse; originated on roof; cause, spark from soldering-pot.

Remarks. — Put out by workman; department not notified of this fire and did not respond.

Tuesday, 3d, 12-05 P.M. Still.

No. 244 FEDERAL ST. Owned by N. Y. & N. E. R.R. Corporation; insurance, $15,000; occupied by Hapland & Maranis, as tailor; insurance, $1,000; occupied by W. O. Tuttle, as beer bottler; insurance, $9,000; originated on 3d floor; cause, defective gas-pipe.

Tuesday, 3d, 5-25 P.M. Box 93.

No. 592 TREMONT ST. Owned by H. Crocker; insurance, $7,500; occupied by L. M. Thurber, as dwelling; loss, $16; insurance, $2,000; originated on first floor; cause, curtain igniting from gas-jet.

Tuesday, 3d, 8-40 P.M. Still.

REAR No. 6 PIKE ST. Owned by Wm. Manning heirs; occupied by Mrs. M. Monahan, as dwelling; loss, $5; originated on first floor; cause, overturning kerosene lamp.

Wednesday, 4th, 2-38 A.M. Box 263.

PERKINS ST. Needless.

Wednesday, 4th, 3-37 P.M. Still.

No. 27 BOWKER ST. Owned by Wilde estate; occupied by Donovan & Co., as horse-shoers; originated in blacksmith shop; cause, spark from forge.

Wednesday, 4th, 8 P.M. Still.

OPPOSITE 1175 WASHINGTON ST. Cause, electric motor igniting car of W. E. R.R. Company.

Thursday, 5th, 1-28 P.M. Box 929.

No. 384 FREEPORT ST. Owned by Boston Gas Company; loss, $125; insurance, $3,500; occupied by W. G. Jigger, as dwelling; occupied by Peter Gavey, as dwelling; loss, $50; occupied by John Fitzgerald, as dwelling; loss, $25; insurance, $700; originated on 1st floor; cause unknown.

Thursday, 5th, 7-30 P.M. Still.

No. 90 BROAD ST. Owned by W. H. Hill estate; loss, $34; insurance, $1,000; occupied by Edgar L. Turner, as printer; loss, $36; insurance, $1,500; originated on 2d floor; cause unknown.

Friday, 6th, 12-10 A.M. Box 41.

COR. MILK AND WASHINGTON STS. False alarm.

Friday, 6th, 2-04 P.M. Still.

No. 245 BOSTON ST. Owned by Mr. Johnson; loss, $25; insurance, $3,000; occupied by Thomas H. Obrine, as dwelling; originated on 1st floor; cause, explosion of kerosene-oil stove.

Remarks.— Mrs. M. V. Obrine was badly burned on the arms and face while extinguishing the fire.

Friday, 6th, 4-04 P.M. Still.

No. 52 ELM ST. Owned by H. and G. Nutting; insurance, $2,800; occupied by H. and G. Nutting, as dwelling; originated on 1st floor; cause, smoky flue.

Remarks. — No fire.

Friday, 6th, 5-50 P.M. Still.

COR. DORCHESTER AVE. AND BROADWAY. Cause, electric motor igniting car of W. E. R.R. Company.

Saturday, 7th, 9-33 A.M. Box 114.

WEST FIRST, BETWEEN D AND E STS. Owned by Jenny Manufacturing Company; loss, $215; insurance, $1,250; occupied by Jenny Manufacturing Company, as oil works; originated on floor of boiler-room; cause, oil igniting from boiler furnace fire.

Saturday, 7th, 2-53 P.M. Still.

COR. FRANKLIN AND ASH STS. Originated in the street; cause, boys setting fire to some varnish in the street.

Remarks. — Barrel varnish dropped from team and burst on the street.

Saturday, 7th, 6-47 P.M. Still

OPPOSITE BRAGDON ST. Cause, fire in an old tree, set by children.

Saturday, 7th, 7-30 P.M. Still.

No. 28 BURKE ST. Owned by John Dolan; insurance, $1,500; occupied by Daniel O'Neil, as dwelling; originated in cellar; cause, incendiary.

Saturday, 7th, 9–22 P.M. Box 7.

NO. 2 LIVINGSTON ST. Needless.

Saturday, 7th, 11–15 P.M. Telephone alarm.

Remarks. — Call received at Engine House No. 28 from fire-alarm office directing them to Box 545; on reaching there found no one near the box and no cause for the alarm.

Saturday, 7th, 11–16 P.M. Box 428.

NO. 97 DECATUR ST. Owned by Daniel O'Neil; loss, $30; insurance, $2,300; occupied by Daniel O'Neil and others, as dwelling; loss, $90; insurance, $500; originated in basement; cause, hot pipe left in coat pocket.

Sunday, 8th, 2–39 A.M. Box 73.

NO. 11 BRADFORD ST. Owned by Geo. H. Greene; loss, $52; insurance, $2,000; occupied by C. Guthrie, as lodging; loss, $40; originated on 3d floor; cause unknown.

Sunday, 8th, 3–39 A.M. Box 613.

MARGINAL ST. False alarm.

Sunday, 8th, 3–43 A.M. Box 65.

NO. 9 GENESEE ST. Owned by Cornelius Murray; loss, $369; insurance, $3,000; occupied by Mary McLaughlin, as dwelling; originated in basement; cause unknown.

Remarks. — Second alarm given by mistake.

Sunday, 8th, 3–45 A.M. Box 45.

FEDERAL, COR. FRANKLIN ST.

Remarks. — Engines 25 and 35, H. & L. 8, received one round on tapper and responded, but services not required, as no alarm had been pulled from the box.

Sunday, 8th, 10–55 A.M. Still.

NO. 556 DUDLEY ST. Owned by Cheever Newhall; occupied by G. L. McGregor, as grocery.

Remarks. — Smoking kerosene lamp in grocery, extinguished by hoseman McCarthy, of Engine No. 12.

Sunday, 8th, 12–15 P.M. Still.

NO. 18 DARTMOUTH PL. Originated in chimney; cause, burning out; needless.

Sunday, 8th, 12–44 P.M. Box 71.

NO. 22 CLARENDON ST. Owned by J. F. Paul; loss, $60; insurance, $5,000; occupied by F. Blood, as dwelling; loss, $40; originated on 3d floor; cause, upsetting kerosene-oil stove.

Sunday, 8th, 1–44 P.M. Box 92.

NO. 118 HUNTINGTON AVE. Owned by G. W. Wilds; insurance, $20,000; occupied by B. Bradley, as hotel; insurance, $9,000; originated on 4th floor; cause, lace curtain igniting from lighted lamp.

Sunday, 8th, 2–12 P.M. Still.

FRIEND ST. Originated on vacant lot; cause, rubbish, set by boys.

Sunday, 8th, 2–47 P.M. Still.

FEDERAL-ST. BRIDGE. Originated on cable house, W. E. R.R.; cause, electric current from broken trolley-wire; no damage.

Sunday, 8th, 7–04 P.M. Box 421.

No. 13 MAIN ST. Owned by M. D. Green; loss, $55; insurance, $700; occupied by Joshua Lee, as dwelling; loss, $25; occupied by J. A. Lew & Son, as clothing; originated on 2d floor; cause unknown.

Monday, 9th, 7–07 A.M. Still.

COR. No. 40 PARKMAN AND No. 36 NORTH ANDERSON STS. Owned by E. W. Ridgeway; loss, $4; insurance, $1,500; owned by Thomas Kelty; loss, $8; insurance, $2,000; occupied by C. S. Bailey, as dwelling; occupied by J. Madden, as dwelling; originated on 3d floor; cause, lamp set fire to ceiling.

Monday, 9th, 9–50 A.M. Box 5.

No. 52 BILLERICA ST. Owned by D. Crane; loss, $198; insurance, $2,500; occupied by M. A. Wutuck, as dwelling; loss, $215; insurance, $500; originated on 3d floor; cause, kerosene-oil stove.

Monday, 9th, 6 P.M. Still.

No. 129 LONDON ST. Owned by S. S. Hoffses; insurance, $3,000; occupied by Woodside Bros., as printing-office; insurance, $850; originated on 1st floor; cause, lamp explosion.

Monday, 9th, 7–09 P.M. Still.

No. 135 BORDER ST. Owned by A. McLean; occupied by A. McLean, as planing-mill; originated in chimney; cause, soot burning in chimney.

Monday, 9th, 9–35 P.M. Still.

No. 17 NASSAU ST. Owned by Mrs. Cotter; loss, $30; insurance, $8,000; occupied by M. C. Hatch, as dwelling; loss, $30; originated on 1st floor; cause, lace curtains igniting from lamp.

Tuesday, 10th, 10–55 A.M., 2d alarm, 11–07 A.M. Box 5.

Nos. 116 TO 124 MERRIMAC ST. Owned by Baptist Evangelical Society; loss, $4,632; insurance, $25,000; No. 19 South Margin st., owned by I. Mandelzweig; loss, $55; insurance, $3,500; occupied by J. H. Roberts & Co., as machinists; loss, $15,013; insurance, $31,500; occupied by I. Mandelzweig, as dwelling; originated on 5th floor; cause unknown.

Tuesday, 10th, 2–45 P.M. Still.

No. 713 EAST FOURTH ST. Owned by W. G. Doe; loss, $5; insurance, $2,500; occupied by Arey Bros., as plumbers; originated on outside; cause, lighted cigar thrown in a box of straw.

Tuesday, 10th, 3–25 P.M. Still.

No. 41 WALL ST. Owned by L. R. Cutter; occupied by Mary Shaw, as dwelling; originated on 4th floor; cause, careless use of matches.

Tuesday, 10th, 11-57 P.M. Still.

No. 786 EAST FOURTH ST. Owned by Richard Hussey; loss, $120; insurance, $9,000; occupied by C. J. Morton, as dwelling; loss, $25; originated on 2d floor; cause, lighted match dropped in wood-box.

Wednesday, 11th, 10-45 A.M. Still.

COW ISLAND. Cause, grass fire.

Wednesday, 11th, 2-42 P.M. Box 541.

CANTERBURY ST. Cause, fire in peat bog.

Wednesday, 11th, 4-01 P.M. Box 546.

COW ISLAND. Cause, needless.

Wednesday 11th, 4-50 P.M. Still.

No. 80 PORTLAND ST. Owned by John M. Robbins, trustee; insurance, $1,000; occupied by H. M. Flynn & Co., as liquors; insurance, $1,000; originated on 1st floor; cause, overheated chimney.

Wednesday, 11th, 9-30 P.M. Still.

No. 80 KNEELAND ST. Owned by Lewis E. Coffin; insurance, $16,000; occupied by P. Sullivan, as barber shop; insurance, $150; originated on 1st floor; cause, fumigating.

Thursday, 12th, 7-01 A.M. Box 5.

No. 36 NASSAU ST. Owned by Henry Randall heirs; insurance, $2,400; No. 38 owned by A. O'Brien; loss, $30; insurance, $2,000; occupied by John Roberts, as dwelling and workshop; originated in ell on 1st floor; cause, explosion of naphtha.

Remarks. — John Roberts, the occupant, was fatally burned at this fire.

Thursday, 12th, 2-02 P.M. U.S. Automatic.

Nos. 25 TO 29 BEACH ST. Owned by W. P. B. Weeks; insurance, $30,000; occupied by Geo. F. Hewitt, as liquor store; insurance, $53,000; occupied by P. Logowski, as tailor shop; originated on 5th floor; cause, paper-hanger breaking wire of U.S. automatic.

Thursday, 12th, 4 P.M. Still.

OFF BAKER ST. Cause, fire in woods at Martin Luther Home.

Thursday, 12th, 6-15 P.M. Still.

No. 150 TREMONT ST. Owned by Lawrence estate; insurance, $10,000; occupied by Julius Fillner, as restaurant; insurance, $5,000; occupied by Adams & Ilsley, as harnesses; insurance, $20,000; occupied by Brand & Soule, as dentists; loss, $5; insurance, $5,000; originated on awning, 1st floor; cause, cigar or match thrown from window above.

Thursday, 12th, 7-41 P.M. Box 23.

Nos. 9 AND 11 CAMBRIDGE ST. Owned by Shaw estate; occupied by Joseph Cleve, as liquor store; insurance, $4,000; originated in basement; cause, explosion of plumber's gasoline pot.

Remarks. — Charles Remington and Patrick Whalen had their hands burnt when gasoline pot exploded.

Thursday, 12th, 7-50 P.M. Still.

TREMONT ST. Cause, burning out of rheostat of W. E. R.R. electric car.

Thursday, 12th, 8–10 P.M. Still.

No. 150 TREMONT ST. Owned by Lawrence estate; insurance, $10,000; occupied by Julius Fillner, as restaurant; insurance, $5,000; occupied by Adams & Ilsley, as harness-maker; insurance, $20,000; occupied by Brande & Soule, as dentists; insurance, $5,000; originated in chimney; cause, burning of soot in chimney.

Thursday, 12th, 9–16 P.M. Box 67.

No. 1 COMMON ST. Owned by Fifty Associates; loss, $600; insurance, $3,000; occupied by L. S. Wilkes, as tailor shop; loss, $658; insurance, $7,000; originated on 1st floor; cause unknown.

Thursday, 12th, 9–16 P.M. Box 6.

Needless.

Remarks. — Inaccurate winding from Box 67.

Friday, 13th, 12–10 P.M. Still.

EAST ST. Owned by Geo. Cavanaugh; insurance, $5,000: occupied by E. Butterfield, as dwelling; loss, $15; insurance, $3,000; originated on 2d floor; cause, gas-jet igniting curtain.

Friday, 13th, 1–36 P.M. Still.

CENTRAL WHARF. Owned by Central Wharf Corporation; unoccupied; originated in oil and lamp room; cause, spontaneous combustion among oily waste.

Friday, 13th, 2–07 P.M. Box 16.

Nos. 50–51 N. MARKET ST. Owned by Mrs. John Cummings; insurance, $8,000; occupied by N. E. Hollis, as meat store; insurance, $4,500; originated in basement, cause, smoky chimney-flue.

Remarks. — Hosemen Gillen and Solari thrown from hose wagon of Engine 4 at corner Hanover and Court streets. Gillen slightly injured and Solari severely injured.

Friday, 13th, 6–53 P.M. Box 52.

No. 289 DEVONSHIRE ST. Owned by Charles O. Rogers; loss, $583; insurance, $21,000; occupied by Rosnosky Bros. and Blumberg, as ladies' wrappers; loss, $2,146; insurance, $5,000: occupied by J. C. Meyers & Co., as spool silk; insurance, $23,000; occupied by M. C. Hood & Co., as cologne; insurance, $1,000; originated on fourth floor; cause unknown.

Friday, 13th, 7–15 P.M. Still.

MT. HOPE CEMETERY. Originated in rubbish and brush in the cemetery; cause unknown.

Friday, 13th, 9–40 P.M. Still.

PROVIDENCE DEPOT, PARK SQ. Owned by N. Y., N. H., & H. R.R.; insurance, $100 000; occupied by N. Y., N. H., & H R.R., as passenger station; originated on second floor; cause, spontaneous combustion of cotton waste.

Saturday, 14th, 6–04 A.M. Box 68.

No. 618 HARRISON AVE. Owned by city of Boston; loss, $230; insurance, $1,000; occupied by Warley & Co., as metal workers; occupied by G. N. Rost *et als.*, as woodworkers; loss, $250; insurance, $3,200; originated on first floor; cause, sparks from fire-box.

Saturday, 14th, 1-07 P.M. Still.

No. 109 STATE ST. Owned by Mrs. Rose Saltonstall; insurance, $20,000; occupied by Western Union Telegraph Company, as telegraph office; no fire; cause, testing line and mistaken for a call for help.

Sunday, 15th, 12-35 P.M. Still.

No. 16 KNOWLTON ST. Owned by Arthur O'Neil; loss, $5; occupied by John A. Hennessey, as dwelling; originated on 1st floor; cause, defective chimney.

Sunday, 15th, 3-27 P.M. Box 522.

OFF PAUL GORE ST. Owned by Owen Nawn; loss, $75; occupied by Owen Nawn, as blacksmith shop; loss, $75; originated on ground floor; cause, sparks from forge.

Sunday, 15th, 5-56 P.M. Still.

No. 92½ STANIFORD ST. Owned by A. B. N. Chapin; loss, $100; insurance, $10,000; occupied by J. Simon, as boots and shoes; loss, $600; insurance, $1,000; originated on first floor; cause, supposed explosion of kerosene lamp.

Monday, 16th, 11-21 A.M. Still.

No. 896 EAST FOURTH ST. Owned by Catherine M. Winniatt; loss, $40; insurance, $2,000; occupied by Michael Fogarty, as dwelling; originated on basement floor; cause, sparks from a furnace igniting excelsior.

Monday, 16th, 1-26 P.M. Still.

No. 51 GREEN ST. Owned by I. A. Rich; loss, $460; insurance, $9,000; occupied by N. Bourees, as confectionery; loss, $694; insurance, $1,500; originated on first floor; cause, unknown.

Monday, 16th, 5-55 P.M. Still.

FISHER AVE. Originated in chimney; cause, soot in chimney on fire.

Monday, 16th, 7-52 P.M. Still.

TREMONT ST. Cause, burning of motor on West End R.R. car.

Monday, 16th, 8-54 P.M. Box 927.

No. 21 BEECH ST. Owned by J. J. Breach; loss, $7,140; insurance, $5,000; occupied by J. J. Breach, as dwelling; loss, $1,000; insurance, $1,000; originated on 1st floor; cause, unknown.

Tuesday, 17th, 9 A M. Still.

No. 419 SHAWMUT AVE. Cause, chimney burning out.

Tuesday, 17th, 5 P.M. Still.

OFF AMORY ST. Owned by McBurney estate; insurance, $2,000; occupied by Luigi Mutrick, as dwelling; insurance, $2,000; originated in closet, 2d floor; cause unknown.

Tuesday, 17th, 6-20 P.M. Box 186.

No. 3 DORSET ST. Owned by J. W. Hill; loss, $7; insurance, $3,500; occupied by J. W. Hill, as dwelling; loss, $10; insurance, $1,000; originated on 2d floor; cause, lighted match igniting window-curtain.

Tuesday, 17th, 9–06 P.M. Box 544.

CENTRE ST. Fire in small piece of woods on Skinner estate; cause unknown.

Wednesday, 18th, 6–58 P.M. Box 9.

NOS. 20 AND 22 FLEET ST. Owned by Thomas McCormick; loss, $21; insurance, $7,500; occupied by Gustavo Piscapo, as bakery; insurance, $2,000; occupied by Philipi Delvisiovo, as dwelling; loss, $25; originated on 2d floor; cause, breaking kerosene-oil lamp.

Thursday, 19th, 6–10 P.M. Still.

NO. 20 WALPOLE ST. Owned by James Roston; insurance, $1,000; occupied by Mrs. Ellen Lynch, as dwelling; loss, $10; originated on 2d floor; cause, overheated kerosene lamp taking fire.

Friday, 20th, 9–20 A.M. Box 423.

NO. 7 MT. VERNON PL. Owned by A. & L. Conroy; loss, $20; insurance, $2,000; occupied by Robinson & Woods, as stable; originated on roof; cause, sparks from chimney.

Friday, 20th, 11 A.M. Still.

NO. 33 HAWLEY ST. Owned by Harvard College Association; insurance, $20,000; occupied by Suburban Light and Power Company, as central station; insurance, $21,000; originated in basement; cause, felt igniting on steam-pipe.

Friday, 20th, 12–40 P.M. Still.

NO. 57 WILLIAMS ST. Owned by Mrs. Carrie E. Stearns; loss, $50; insurance, $1,000; occupied by H. Sanderman, as dwelling; insurance, $500; originated on outside front door; cause, fire dropped from a roofer's furnace.

Saturday, 21st, 8–57 P.M. Box 5.

NO. 48 LOWELL ST. Owned by Simon Muskovtze; loss, $95; insurance, $3,975; occupied by M. Cohen, as dwelling; originated on 2d floor; cause, explosion of lamp.

Sunday, 22d, 10–30 A.M. Still.

NO. 27 LEVERETT ST. Owned by Hill heirs; occupied by P. F. Dowling, as fish market; originated in chimney; cause, smoky chimney.

Sunday, 22d, 6–34 P.M. Box 36.

NO. 28 COURT ST. Cause, smoky chimney.
Remarks. — Needless.

Sunday, 22d, 7–51 P.M. Box 221.

NO. 37 ELMWOOD ST. Needless.

Sunday, 22d, 8 P.M. Still.

CENTRE ST. Originated in woods off Centre st.; cause unknown.

Monday, 23d, 1–53 A.M. Still.

NO. 778 DUDLEY ST. Owned by J. H. Upham; insurance, $500; occupied by Welsh & Wilson, as express office; originated on 1st floor; cause, lighted cigar in box of sawdust.

Monday, 23d, 6–38 P.M. Box 6.

EAST CAMBRIDGE, MASS.
Remarks. — Call for help to East Cambridge. Substitute Coleman of Engine 4 injured by being cut on hand with glass.

Monday, 23d, 9–15 P.M. Still.

NO. 101 BORDER ST. False alarm.

Monday, 23d, 9–55 P.M. Box 68.

NO. 647 HARRISON AVE. Owned by R. M. Demmon; loss, $337; insurance, $5,000; occupied by P. T. Sullivan, as grocery store; loss, $1,050; insurance, $2,000; originated on 1st floor; cause unknown.

Tuesday, 24th, 1–07 A M. Box 72.

NO. 1135 WASHINGTON ST. Owned by Al Watts; loss, $396; insurance, $25,000; occupied by H. M. Temple, as hotel; loss, $116; insurance, $6,600; originated on 3d floor; cause, defective chimney.

Tuesday, 24th, 6–44, 6–57, P.M. Box 8.

COR. CAUSEWAY AND PORTLAND STS. Owned by H. H. Hunnewell estate; loss, $4,835; insurance, $56,500; occupied by Derby, Kilmer, & Pond Desk Co., as desks; loss, $6,084; insurance, $9,000; occupied by Hartford Woven Mattress Company, as mattresses; loss, $1,381; insurance, $2,000; occupied by National Casket Company, as caskets; loss, $2,500; insurance, $35,000; occupied by W. A. Holmes. as groceries; loss, $500; insurance, $11,000; occupied by J. W. Scott, as dining-room; loss, $198; insurance, $2,500; originated on 2d floor, rear; cause, spontaneous combustion oiled rags.

Tuesday, 24th, 10–10 P.M. Still.

NO. 1145 WASHINGTON ST. Owned by Al Watts; occupied by H. M. Temple, as hotel; originated on 1st floor; cause, overheated boiler.
Remarks. — Loss included in report of Box 72 same day.

Tuesday, 24th, 11–40 P.M. Still.

NO. 1145 WASHINGTON ST. Owned by Al Watts; occupied by H. M. Temple, as hotel; originated on 1st floor; cause, overheated boiler.
Remarks. — Loss included in report of Box 72 same day.

Wednesday, 25th, 9–25 A.M. Box 418.

FITCHBURG R.R. YARD. Owned by Fitchburg R.R. Company; loss, $20; insurance, Blanket policy; occupied by J. P. Fenno, as hay car; loss, $10; originated inside freight car; cause unknown.

Wednesday, 25th, 9–25 A.M. Box 618.

Remarks. — Imperfect winding from Box 418.

Wednesday, 25th, 12–42 P.M. Still.

NO. 93 WARREN ST. Owned by Donald Kennedy heirs; occupied by several families, as family hotel; loss, $15; originated on 1st floor; cause unknown.

Wednesday, 25th, 7–10 P.M. Box 13.

NOS. 120 AND 122 NORTH ST. Owned by Hemenway estate; insurance, $12,000; occupied by Seavey & Co., as kitchen ware; insurance, $25,000; originated in basement; cause, probably incendiary.

Wednesday, 25th, 7–19 P.M. Box 254.

No. 1 CULBERT PL. Owned by T. J. Gargan; insurance, $2,000; occupied by Lewis Hartley, as dwelling; loss, $10; originated on 2d floor; cause, lighted match in a basket of clothes.

Wednesday, 25th, 8–03 P.M. Still.

WASHINGTON ST., OPP. NAWN ST. Owned by W. E. R.R. Company; occupied by W. E. R.R. Company, as electric car; loss, $5; cause, defective motor on a W. E. R.R. electric car.

Wednesday, 25th, 8–10 P.M. Box 452.

No. 5 JENNINGS PL. Owned by Mrs Wm. Jennings; loss, $192; insurance, $2.500; occupied by Wm. Fay *et al.*, as dwelling; loss, $100; originated on third floor; cause, upsetting of lamp.

Wednesday, 25th, 8–43 P.M. Still.

COR. WASHINGTON ST. AND TEMPLE PL. Cause, burning out of motor on W. E. R.R. car.

Thursday, 26th, 1–10 A.M. Box 53.

No. 661 TO 667 WASHINGTON ST. Owned by Boylston Market Association; loss, $150; insurance, $21,500; occupied by F. H. Chamberlain, as gent's furnishing; loss, $500; insurance, $12,700; occupied by H. P. Veith, as restaurant; loss, $300; insurance, $3,000; occupied by R. R. Sheldon, as theatre; insurance, $12,000; occupied by Oliver Green, as music store; insurance, $2,000; originated in basement; cause unknown.

Thursday, 26th, 5–20 P.M. Box 87.

No. 86 LENOX ST. Cause, leak in joint of gas-pipe.
Remarks. — No fire.

Friday, 27th, 12–30 A.M. Still.

No. 84 COURT ST. Owned by W. N. Prescott; occupied by C. L. Porter, as dining-room; originated in basement; cause, escaping steam from boiler.

Friday, 27th, 4–47 A.M. Box 637.

No. 3 SARATOGA ST. Owned by Methodist Church; loss, $3,580; insurance, $22,500; occupied by M. E. Church, as church; loss, $215; insurance, none; originated on 1st floor, hallway; cause unknown.

Friday, 27th, 10–53 A.M. Box 49.

No. 4 WINTER ST. Owned by J. H. Smith; loss, $174; insurance, $32,000; occupied by A. R. Specht, as hair and wig store; loss, $900; insurance, $2,500; originated on first floor; cause, breaking of alcohol lamp.
Remarks. — Miss Burke severely burned while exhibiting the curling machine; Mr. Specht also burned on hands and face.

Friday, 27th, 5–45 P.M. Still.

No. 9 PORTLAND ST. Owned by C. H. White; insurance, $3,000; occupied by C. H. White, as stove store; originated on roof; cause, hot ashes thrown in barrel of rubbish.

Friday, 27th, 8 P.M. Box 64.

No. 5 MOTTE ST. Owned by C. G. Way; loss, $415; insurance, $15,000; occupied by S. Calish, as tailor shop; loss, $359; insurance, $1,500; occupied by David Marks, as tailor shop; insurance, $1,000; occupied by Rice, Sawyard, & Co., as clothing; loss, $250; occupied by Spitz Bros. & Mork, as clothing; loss, $69; insurance, $3,600; occupied by James Rothwell & Co , as clothing; loss, $45; insurance, $25,000; occupied by J. R. Campbell; loss, $350; originated on fourth floor; cause unknown.

Friday, 27th, 8–25 P.M. Still.

No. 74 CEDAR ST. Originated on lot off Cedar st.; cause, burning old rubbish.

Saturday, 28th, 12–15 A.M. Still.

No. 283 QUINCY ST. Owned by L. W. Eddy & Co.; insurance, $125; occupied by L. W. Eddy & Co., as carpenter shop; insurance, $325; originated on roof; cause, sparks from locomotive.

Saturday, 28th, 5–29 P.M. Box 19.

No. 154 BLACKSTONE ST. (awning in front of). Owned by Mrs. Mary Cheever; loss, $65; insurance, $6,000; occupied by Geo. H. Mason & Co., as tin-ware manufacturing; awning owned by Edw. L. Shaw & Co., as meat stand; loss, $30; insurance, $25,000; originated on awning on the street; cause, naphtha torch igniting awning.

Saturday, 28th, 10–29 P.M. Box 65.

No. 4 SENECA ST. Owned by heirs of John Britt; loss, $600; insurance, $1,500; occupied by Miss Egelstine, as dwelling; originated in basement; cause unknown.

Sunday, 29th, 4–45 A.M. Still.

No. 384 WARREN ST. Owned by Bacon & Tarbell; occupied by Bacon & Tarbell, as livery stable; originated on 1st floor; cause, lighted match in box of sawdust.

Sunday, 29th, 10–20 P.M. Still.

No. 1277 WASHINGTON ST. Originated on first floor; cause, overheated stove.

Remarks. — Needless alarm.

Monday, 30th, 6–39 A.M. Box 436.

No. 43 AUBURN ST. Owned by S. M. Jones; loss, $43; insurance, $1,500; occupied by Mrs. M. M. Dodge, as boarding-house; loss, $40; originated on second floor; cause unknown.

Monday, 30th, 2–20 P.M. Still.

No. 102 SALEM ST. Owned by Max Lipman; loss, $85; insurance, $4,500; occupied by Samuel Rosenbaum, as tenement; loss, $15; originated on third floor; cause unknown.

Monday, 30th, 4–20 P.M. Still.

No. 28 WALKER ST. Owned by Walker heirs; insurance, $1,000; occupied by Mrs. L. Church, as dwelling; originated in basement; cause, burning wooden front of fireplace.

Monday, 30th, 4–45 P.M. Watkins Automatic 238–5.

No. 50 Arch st. Owned by M. J. Sears; occupied by Robert Burlen, as book-bindery; insurance, $18,000; originated on fifth floor; cause, gas jet overheated thermostat.

Tuesday, 31st, 12–47 A.M. Box 221.

Rear 15 Ward st. Owned by H. W. Holland; insurance, $500; occupied by Peter Kearns, as stable; insurance, $600; originated on 1st floor; cause unknown.

Tuesday, 31st, 12–52 A.M. U.S. Automatic.

No. 472 Washington st. Owned by various parties; loss, $78; insurance, $500,000; occupied by Jordan, Marsh, & Co., as dry-goods store; loss, $1,600; insurance, $1,000,000; originated on second floor; cause, dry goods coming in contact with gas jet.

Tuesday, 31st, 5–12 A.M. Box 315.

No. 11 Brook ave. Owned by W. F. Whitney; loss, $250; insurance, $3,000; occupied by Parker Moland, as dwelling; loss, $57; insurance, $1,000; originated under second floor; cause, rats and matches.

Tuesday, 31st, 7–18 A.M. Box 36.

No. 180 to 188 Washington st. Owned by Robert Codman; insurance, $12,000; occupied by A. J. Wilkinson & Co., as hardware store; insurance, $25,000; originated on roof; cause, sparks from smoking pipe.

Tuesday, 31st, 12–43 P.M. Box 638.

Border st. Owned by Boston Tow Boat Company; loss, $10; occupied by same, as an old shanty; originated on 1st floor; cause, overheated stove.

Tuesday, 31st, 5–29 P.M. Box 5.

Nos. 91 and 93 Causeway and 203 Portland sts. Owned by H. H. Hunnewell; insurance, $56,500; occupied by National Casket Company *et al.*, as warerooms; insurance, $22,000; originated on fourth floor; cause unknown; supposed incendiary.

Tuesday, 31st, 7–27 P.M. Box 38.

So. side Long wharf. (Naphtha launch.) Owned by U. S. Gov't Light House Dept. sch. "Clover;" loss, $5; originated on naphtha launch; cause, naphtha ignited while filling tank.

Remarks. — Capt. Owens' son, of schooner "Clover," slightly burned on hands and face.

NOVEMBER.

Wednesday, 1st, 1–30 P.M. Still.

No. 204 Hampden st. Owned by Andrew McDermott; occupied by D. Putnam, as dwelling; originated on 1st floor; cause, soot in chimney taking fire.

Wednesday, 1st, 7-01 P.M. Still.

NOS. 534 TO 538 MAIN ST. Owned by Hugh Daley; insurance, $2,500; occupied by Evangelist Society, as meeting hall; loss, $5; occupied by R. Dowd, as stove store; insurance, $3,000; originated in transparency; cause, explosion of lamp.

Wednesday, 1st, 9-35 P.M. Still.

NO. 1811 WASHINGTON ST. Owned by C. A. Richards estate; insurance, $8,000; occupied by Mrs. Gillen, as restaurant; no fire; cause, burning sulphur to exterminate cockroaches; needless alarm.

Wednesday, 1st, 9-45 P.M. Box 9.

NO. 36 FLEET ST. Owned by Thomas McCormick; loss, $2; insurance, $20,000; occupied by various parties, as tenements; originated on roof; cause, mattress set on fire by boys.

Thursday, 2d, 5 A.M. Box 62.

NO. 124 ELIOT ST. Owned by S. Jenison; loss, $73; insurance, $15,000; occupied by L. Schuhman, as restaurant; loss, $600; insurance, $3,000; occupied by John McFadden, as curtains; insurance, $1,000; originated on 1st floor; cause, overheated steam-pipes.

Thursday, 2d, 1-10 P.M. Box 541.

CANTERBURY ST. Brush fire; needless alarm.

Thursday, 2d, 5-40 P.M. Still.

NO. 40 PORTER ST. Owned by L. P. Bogett; loss, $10; insurance, $2,000; occupied by Lewis Jacobs, as dwelling; loss, $43; insurance, $1,500; originated on 2d floor; cause, lace curtain coming in contact with gas jet.

Thursday, 2d, 7-20 P.M. Still.

RAILROAD OFF MORTON ST. Fire in pile of sleepers on side of railroad; cause, sparks from locomotive.

Thursday, 2d, 7-20 P.M. Still.

ARNOLD ST. Brush fire; needless alarm.

Friday, 3d, 2-28 P.M. Box 657.

CURTIS ST. Owned by J. W. Anderson; loss, $24; insurance, $1,500; occupied by J. W. Anderson, as dwelling; insurance, $400; occupied by Edwin Hamilton, as dwelling; loss, $37; insurance, $500; orginated on 2d floor; cause, igniting of matches on mantel-piece.

Friday, 3d, 7-40 P.M. Box 23.

NO. 17 CAMBRIDGE ST. Owned by F. H. Moore; occupied by M. N. Curley, as liquors; originated on awning; cause, match thrown from window above; needless alarm.

Friday, 3d, 8-30 P.M. Box 77.

ALBANY AND DEDHAM STS. False alarm.

Friday, 3d, 12-56 P.M. Still.

NO. 20 ADAMS PL. Owned by Mrs. Elizabeth R. Hayes; loss, $50; insurance, $1,500; unoccupied; originated on 2d floor; cause, defective open grate.

Saturday, 4th, 8–12 A.M. Box 83.

Tremont st., opp. Lenox st. Needless alarm; cause, vapor mistaken for fire.

Saturday, 4th, 9–50 A.M. Still.

No. 22 Cunard st. Owned by E. J. Hadley; insurance, $12,000; occupied by M. Asperland, as dwelling; loss, $11; originated on 1st floor; cause, naphtha taking fire while cleaning lounge.

Saturday, 4th, 6–10 P.M. Still.

Opposite 1171 Washington st. Owned by W. E. R.R. Company; occupied by same, as electric car; originated under the floor; cause, defective motor.

Saturday, 4th, 8–48 P.M. Box 19.

No. 13 Haverhill st. Owned by A. Wentworth; loss, $92; insurance, $1,000; occupied by Symons & Cook, as candy manufacturers; loss, $50; occupied by A. Leavitt, as church organs; loss, $125; insurance, $500; originated on 3d floor; cause, spontaneous combustion.

Sunday, 5th, 3–40 A.M. Still.

No. 197 Maverick st. Owned by W. S. Pratt; insurance, $15,000; occupied by same, as whiting factory; originated on 1st floor; cause, igniting of bagging near furnace.

Sunday, 5th, 4–02 A.M. Box 19.

No. 5 Charlestown st. Owned by R. Hollings heirs; insurance, $10,000; occupied by Wm. F. Wills, as liquors; loss, $69; insurance, $1,500; originated on 1st floor; cause, gas jet igniting drapery behind bar.

Sunday, 5th, 11–33 A.M. Still.

No. 823 East Second st. Owned by Thomas Mullen; occupied by Edward Debruym, as dwelling; originated on 1st floor; cause, overheated stove.

Sunday, 5th, 4–13 P.M. Still.

B. & M. Freight yards, Marginal st. Owned by B. & M. R.R. Company; occupied by same, as freight car; loss, $3; originated on freight car; cause, breaking of carboy of vitriol.

Monday, 6th, 3–20 P.M. Still.

Off Trinity pl. Bonfire.

Tuesday, 7th, 7–15 A.M. Box 635.

B. & A. Freight yard, off Bremen st. Owned by B. & A. R.R. Corporation; occupied by John Crone, as carload of hay; originated in car; cause, set by boys.

Tuesday, 7th, 3 P.M. Still.

Rear No. 488 Neponset ave. Owned by Geo. E. Frost; pile of soft coal; cause, spontaneous combustion.

Tuesday, 7th, 8–45 P.M. Still.

Cor. F and W. Seventh sts. Bonfire.

Wednesday, 8th, 5–28 P.M. Box 9.

No. 409 COMMERCIAL ST., WAREHOUSE No. 4, CONSTITUTION WHARF. Owned by Constitution Wharf Company; loss, $621; insurance, $11,000; occupied by Chas. Boyce, as storage of tow; loss, $1,647; insurance, $8,500; occupied by Manley Bros., as hemp; loss, $184; insurance, $1,500; occupied by Pearson Cordage Company, as hemp; loss, $65; insurance, $36,500; occupied by Barring Bros., as hemp; loss, $618; insurance, $28,800; occupied by National Cordage Company, as hemp; loss, $6,698; insurance, $121,500; occupied by Thomas E. Bixby, as cocoa; loss, $8,197; insurance, $47,000; occupied by Plymouth Cordage Company, as hemp; loss, $130; $43,200; occupied by Curtis & Aldrich, as starch; loss, $50; insurance, $1,000; occupied by Nash, Winslow, & Co., as dextrine; loss, $17; insurance, $900; originated on 6th floor; cause, probable friction from pulleys.

Wednesday, 8th, 7–18 P.M. Box 241.

No. 18 CIRCUIT ST. Owned by Henry Sears; loss, $75; insurance, $3,000; occupied by same, as dwelling; loss, $48; insurance, $1,500; originated in basement; cause, spontaneous combustion.

Thursday, 9th, 2–59 A.M. Box 65.

No. 30 OSWEGO ST. Owned by Nathan Hurbert; loss, $520; insurance, $4,000; occupied by L. Dawson, as dwelling; occupied by David Rhuken, as dwelling; originated on attic floor; cause, hot ashes dumped on floor.

Thursday, 9th, 9–07 A.M. Box 17.

No. 105 BLACKSTONE ST. Owned by H. M. Clark; insurance, $10,000; occupied by same, as stoves; insurance, $18,000; originated in cellar; cause, upsetting of kerosene lamp.

Thursday, 9th, 12–10 P.M. Box 65.

No. 149 ALBANY ST. Owned by Chas. G. Berry; insurance, $4,000; occupied by Josephine O'Connor, as dwelling; occupied by Mary Ormsby, as dwelling; occupied by William Dugan, as dwelling; originated on 2d floor; cause unknown.

Thursday, 9th, 12–46 P.M. Box 534.

OFF BROWN AVE. Brush fire.

Thursday, 9th, 6–55 P.M. Still.

MORTON ST. Bonfire; cause, set by boys.

Thursday, 9th, 8–27 P.M. Still.

No. 9 HAWTHORNE ST. Bonfire.

Thursday, 9th, 9–12 P.M. Box 216.

No. 28 GREENLEAF ST. Owned by G. R. Esterbrook; insurance, $3,000; occupied by A. Burhardt, as dwelling; originated in chimney; cause, soot burning in chimney.

Friday, 10th, 12–29 A.M. Box 18.

No. 73 CORNHILL. Owned by H. Wheelwright; loss, $245; insurance, $7,000; occupied by P. Boodro, as barber; loss, $100; occupied by A. M. Phelps, as printer; loss, $77; insurance, $900; originated on 2d floor; cause, oil lamp setting lathing on fire.

Friday, 10th, 5-45 A.M. Still.

CENTRE ST. Owned by City of Boston; loss, $50; occupied by Sewer Department, as tool-house; loss, $150; originated on 1st floor; cause, overheated stove.

Friday, 10th, 8-53 A.M. Still.

No. 122 LEVERETT ST. Owned by A. Berkman; unoccupied; originated on 4th floor; cause, plumber's furnace upsetting.

Friday, 10th, 2 P.M. Still.

DORCHESTER AVE. Brush fire; cause unknown.

Friday, 10th, 2-10 P.M. Box 81.

No. 351 COLUMBUS AVE. Owned by W. E. L. Dillaway; loss, $400; occupied by E. O. Sabine, as lodging-house; loss, $350; insurance, $2,500; originated on 3d floor; cause, rats and matches.

Friday, 10th, 7-20 P.M. Still.

No. 185 MEDFORD ST. Owned by S. H. Fall; insurance, $2,500; occupied by Patrick McGowen, as currier shop; insurance, $11,600; originated in rubbish on roof; cause, sparks from chimney.

Friday, 10th, 8-40 P.M. Box 41.

BOSTON POST OFFICE BUILDING. Owned by United States Government; loss, $50; occupied by United States Post Office, as post-office; originated in basement; cause, lighted match thrown in rubbish on floor.

Friday, 10th, 8-50 P.M. Still.

No. 321 BORDER ST. Owned by J. H. Stevenson; insurance, $3,000; occupied by John McKay, as tenement; occupied by W. A. Clifford, as tenement; insurance, $500; originated on 1st floor; cause, soot burning in chimney.

Saturday, 11th, 10-45 A.M. Still.

No. 5 WARD COURT. Owned by Mrs. A. E. Foss; loss, $5; insurance, $1,200; occupied by N. Bullard, as dwelling; loss, $20; originated on 3d floor; cause, children and matches.

Saturday, 11th, 11-05 A.M. Still.

No. 13 NORTH ANDERSON ST. Owned by Parkman heirs; occupied by William Coliton, as blacksmith; originated on 1st floor; cause, sparks from forge.

Saturday, 11th, 2-11 P.M. Box 112.

No. 158 DORCHESTER AVE. Owned by Lord heirs; occupied by Cohen & Slivinsky, as clothing; loss, $10; originated on 1st floor; cause, child playing with matches.

Saturday, 11th, 6-35 P.M. Still.

No. 52 WEST DEDHAM ST. Needless alarm; cause, fumigating house.

Sunday, 12th, 1-20 A.M. Box 122.

No. 250 DORCHESTER ST. Owned by Mrs. Hannah Spence; loss, $670; insurance, $4,500; occupied by Simon Cohen, as groceries; loss, $15; insurance, $800; originated on 1st floor; cause unknown.

Sunday, 12th, 1-25 A.M. Box 634.

CENTRAL SQ. Owned by Universalist Society; loss, $3,982; insurance, $18,000; occupied by L. J. Wyzanski, as fancy goods; loss, $138; insurance, $17,500; occupied by Odd Fellows Hall, as hall; insurance, $600; occupied by Outing Club, as club-room; loss, $750; insurance, $1,000; occupied by Knights Golden Eagle, as hall; insurance, $400; occupied by Odd Ladies, as lodge-room; loss, $10; insurance, $150; originated on 4th floor; cause, unknown.

Sunday, 12th, 11-30 A.M. Still.

WILDER ST. Rubbish on the dump; originated on dump; set by unknown person.

Sunday, 12th, 12-38 P.M. Box 458.

False alarm.

Sunday, 12th, 4-30 P.M. Box 635.

B. & A. R.R., OFF BREMEN ST. Owned by Central Vermont R.R. Corporation; occupied by John Crowe, as load of hay; originated in car of hay; cause, set by boys.

Sunday, 12th, 5-15 P.M. Still.

SELDEN ST. Brush fire.

Sunday, 12th, 10-06 P.M. Box 26.

NO. 2 LINDALL PL. Owned by Lewis Appleton; occupied by same, as dwelling; loss, $5; insurance, $1,000; originated on 4th floor; cause, kerosene lamp breaking.

Monday, 13th, 8-30 A.M. Still.

NO. 5 SHAWMUT ST. Owned by James Stevenson; insurance, $12,000; occupied by D. Mack, as dwelling; loss, $11; insurance, $400; originated on 2d floor; cause, spark from pipe setting fire to lace curtains.

Monday, 13th, 10-10 A.M. Still.

HIGHLAND AVE. Owned by F. A. Davis; insurance, $1,500; occupied by A. Norcross & Co., as laundry; insurance, $500; originated in basement; cause, gas meter taking fire from candle.

Monday, 13th, 12-49 P.M. Still.

NO. 27 MAGAZINE ST. Owned by W. B. Wallace; loss, $50; insurance, $2,000; occupied by Henry Nichols, as dwelling; loss, $28; insurance, $500; originated on 2d floor; cause, children and matches.

Monday, 13th, 4-50 P.M. Still.

NO. 2 MONUMENT PL. Owned by William Shannon; insurance, $1,000; occupied by John Condis, as dwelling; originated on roof.

Monday, 13th, 5-33 P.M. Box 127.

NO. 125 WEST EIGHTH ST. Owned by Mrs. Mary McCabe; loss, $20; insurance, $1,000; occupied by John Mitz, as dwelling; originated in cellar; cause, children and matches.

Tuesday, 14th, 12-01 A.M. Box 823.

NO. 3 HEFFERRON PL. No. 3, owned by James M. Flynn; loss, $500; insurance, $500; unoccupied; originated on top floor; No. 2, owned by James Hefferron; loss, $165; insurance, $1,000; occupied by James Hefferron, as dwelling; loss, $50; insurance, $800; originated on top floor, No. 3; cause, supposed incendiary.

Tuesday, 14th, 2-21 P.M. Box 134.

No. 168 BOWEN ST. Owned by Margaret Nain; loss, $55; insurance, $1,500; occupied by same, as dwelling; loss, $55; insurance, $500; originated on 1st floor; cause, benzine vapor igniting from a lamp.

Tuesday, 14th, 7-10 P.M. Box 424.

No. 141 CHELSEA ST. Owned by Mrs. A. A. Mulhern; loss, $42; insurance, $2,000; occupied by same, as dwelling; loss, $40; insurance, $1,000; originated in basement; cause, explosion of lamp.

Tuesday, 14th, 9-15 P.M. Box 67.

No. 758 WASHINGTON ST. Owned by Blanchard heirs; insurance, $5,000; occupied by T. Daley, as liquors; insurance, $10,000; occupied by H. E. Rand, as barber shop; insurance, $1,000; occupied by F. C. Reynolds, as tenement; cause, smoke mistaken for fire.

Tuesday, 14th, 9-49 P.M. Box 454.

No. 29 BEACHAM ST. Owned by B. F. Brown; loss, $15; insurance, $3,000; occupied by John Kelty and others, as dwelling; loss, $10; originated on 1st floor; cause, overheated stove.

Wednesday, 15th, 8-20 A.M. Still.

No. 67 RUTHERFORD AVE. Owned by Lawrence White; loss, $15; insurance, $2,000; occupied by Mary O'Brien, as dwelling; originated on 1st floor; cause, defective chimney.

Wednesday, 15th, 11-15 A.M. Box 245.

No. 706 PARKER ST. Owned by Mary J. Osborne; insurance, $3,500; occupied by C. E. Tuttle, as dwelling; insurance, $1,000; originated in basement; cause, gas igniting from candle while working on pipes; needless alarm.

Wednesday, 15th, 12-08 P.M. Box 451.

No. 9 FREMONT PL. Owned by P. O. Reardon; loss, $21; insurance, $2,250; occupied by John Harney *et als.*, as dwelling; loss, $10; originated on 2d floor; cause, hot ashes in wooden box.

Wednesday, 15th, 2-40 P.M. Still.

No. 44 PEMBROKE ST. Needless alarm; cause, chimney fire.

Wednesday, 15th, 4-55 P.M. Automatic.

Nos. 646-658 WASHINGTON ST. Owned by John H. Pray & Sons Company; insurance, $150,000; occupied by same, as carpets; insurance, $350,000; occupied by H. W. Berry, as pianos; loss, $100; insurance, $8,000; originated on 2d floor; cause, igniting fumes of alcohol lamp.

Wednesday, 15th, 5-44 P.M. Box 87.

No. 59 KENDALL ST. Owned by B. E. Stark; loss, $522; insurance, $3,000; occupied by G. W. Jennings, as dwelling; loss, $20; originated on 1st floor; cause unknown.

Wednesday, 15th, 11–25 P.M. Box 47.

NOS. 109 AND 111 PURCHASE ST. Owned by J. M. Currier; loss, $2,000; insurance. $15,000; occupied by Frank Young, as oil store; loss, $883; insurance, $10,655; occupied by H. C. Mandell, as printers; loss, $150; insurance, $4,500; occupied by C. N. Brown & Co., as machinists; insurance, $3,525; occupied by Rossney Manufacturing Company, as gas appliances; loss, $190; insurance, $1,500; occupied by C. Littlejohn, as paper stock; loss, $229; insurance, $1,500; occupied by W. T. Page & Co., as shippers; loss, $3,268; insurance, $6,000; occupied by H. Rotman, as machines; loss, $40; insurance, $1,000; occupied by Franklin Typewriter Company, as factory; loss, $1,537; insurance, $8,000; originated on 5th floor; cause, probably incendiary.

Thursday, 16th, 8–10 A.M. Automatic.

NO. 230 RUTHERFORD AVE. False alarm.

Thursday, 16th, 9–45 A.M. Still.

NO. 413 WESTERN AVE. Owned by James A. Hathaway; insurance, $2,000; occupied by M. Strahan, as dwelling; originated on 1st floor; cause, spontaneous combustion of oily rags.

Thursday, 16th, 3–40 P.M. Box 426.

NO. 9 ADAMS ST. Owned by J. F. Hunnewell; loss, $53; insurance, $4,500; occupied by B. F. Nutter, as lodgings; originated in basement; cause, explosion of gas.

Thursday, 16th, 3–45 P.M. Still.

NO. 274 FRANKLIN ST. Owned by Guild estate; insurance, $10,000; occupied by Smith & Winchester, as plumber's supplies; originated on 4th floor; cause, short circuit motor wires igniting woodwork.

Thursday, 16th, 7–37 P.M. Still.

NO. 369 ATLANTIC AVE. Owned by Franklin King; insurance, $10,000; occupied by Alden Spear's Sons & Co., as oils, etc.; insurance, $7,500; originated in cellar; cause, spontaneous combustion among rubbish in oil barrel.

Thursday, 16th, 10–08 P.M. Still.

FROST'S WHARF, NEAR NEPONSET AVE. Owned by Frost & Co.; originated in pile of coal on the wharf; cause, spontaneous combustion.

Thursday, 16th, 11–22 P.M. Box 217.

NO. 1209 TREMONT ST. Owned by Campbell Bros.; loss, $216; insurance, $800; occupied by Henehy Bros., as carriage painters; loss, $45; insurance, $700; originated on 2d floor; cause, hot ashes on floor.

Friday, 17th, 1–19 A.M. Box 427.

REAR NO. 119 CHELSEA ST. Owned by J. Reardon; loss, $15; occupied by J. F. Reynolds, as ash-shed; originated in ash-shed; cause, supposed incendiary.

Friday, 17th, 9–35 A.M. Still.

NO. 9 MT. VERNON AVE. Owned by James Stevenson; insurance, $4.000; occupied by John Connors, as dwelling; loss, $5; originated in basement; cause, spark from opening in chimney.

Friday, 17th, 10-48 A.M. Box 14.

No. 309 NORTH ST. Owned by D. Twigg estate; loss, $28; insurance, $7,000; occupied by Michael Angelus, as tenement; loss, $10; originated on 3d floor; cause, probably pipe-smoking in bed.

Friday, 17th, 2-20 P.M. Still.

No. 76 DARTMOUTH ST. Needless alarm; cause, smoky furnace.

Friday, 17th, 3-25 P.M. Box 528.

No. 3797 WASHINGTON ST. Owned by R. S. Cochrane; loss, $105; insurance, $1,200; occupied by Mrs. Cunningham, as dwelling; loss, $25; originated on roof; cause, spark from locomotive.

Friday, 17th, 3-49 P.M. Box 636.

No. 52 PORTER ST. Owned by Thomas Canty; loss, $48; insurance, $800; occupied by same, as dwelling; loss, $58; insurance, $500; originated in basement; cause, lighting fire with kerosene.
Remarks.—Mrs. Delong, 72 years old, fatally burned.

Friday, 17th, 5-11 P.M. Box 612.

No. 2 EVERETT PL. Owned by James Sproul; insurance, $700; occupied by same, as dwelling; needless alarm; cause, smoke mistaken for fire.

Friday, 17th, 5-37 P.M. Box 76.

No. 70 WEST NEWTON ST. Owned by ——— Bowman; loss, $7; insurance, $5,000; occupied by A. E. Allen, as lodgings; loss, $35; insurance, $1,000; originated on 3d floor; cause, window curtain in contact with gas jet.

Friday, 17th, 8-25 P.M. Box 52.

No. 42 LINCOLN ST. Owned by Harris estate; loss, $308; insurance, $15,000; occupied by Wolfson Rubinovz, as clothing; loss, $2,750; insurance, $8,000; occupied by Henry Krey, as hats, caps, etc.; loss, $550; insurance, $6,500; occupied by National Thread Company, as salesroom; insurance, $9,500; occupied by R. D. Green, as shoe findings; insurance, $14,250; originated on 4th floor; cause unknown.

Friday, 17th, 9 P.M. Box 214.

No. 3 ARNOLD ST. Owned by Richard Stokes; loss, $30; insurance, $2,000; occupied by Harvey Curran, as dwelling; loss, $20; insurance, $500; originated on 1st floor; cause, explosion of kerosene lamp.

Friday, 17th, 9-55 P.M. Still.

No. 22 CAMBRIA ST.
Needless alarm; cause, fumigating house.

Friday, 17th, 10-30 P.M. Box 6.

No. 37 BARTON ST. Owned by Burkeman Bros.; unoccupied; originated in basement; cause, incendiary.

Friday, 17th, 10-39 P.M. Still.

REAR No. 84 LEVERETT ST. Originated in rubbish in yard; no damage; cause, incendiary.

Friday, 17th, 11–28 P.M. Still.

No. 211 TREMONT ST. Owned by C. U. Cutting, agent; loss, $11; insurance, $27,000; occupied by Heliotype Printing Company, as printing-office; insurance, $24,000; occupied by F. H. Kilbourne, as piano store; insurance, $5,700; originated in Hotel Pelham; cause, burning paper in the fireplace and extended to No. 211.

Saturday, 18th, 10–30 A.M. Still.

No. 120 HAVRE ST. Owned by Thomas Lane; occupied by Thomas Lane, as clothes yard; originated in yard; cause, burning old rubbish.

Saturday, 18th, 12–52 P.M. Box 819.

OFF WESTERN AVE. Grass fire; originated in grass; cause, set by boys.

Saturday, 18th, 5 P.M. Still.

REAR 97 SILVER ST. Owned by Timothy Dempsey; occupied by Mrs. Mary Roche, as dwelling; originated in chimney; cause, soot burning.

Saturday, 18th, 5–25 P.M. Box 112.

No. 177 DORCHESTER AVE. Cause, sparks from chimney; needless alarm.

Saturday, 18th, 6–36 P.M. Still.

No. 1210 TREMONT ST. Cause, smoking chimney; needless alarm.

Saturday, 18th, 8–23 P.M. Box 529.

FRANKLIN PARK. Brush fire; cause, unknown.

Saturday, 18th, 8–32, 8–41 P.M. Box 4.

No. 43–49 BEVERLY ST. Owned by James Wight; loss, $2,383; insurance, $12,000; occupied by A. M. Wood & Co., as wheel manufactures; loss, $1,198; insurance, $2,500; occupied by N. E. Machine Company as machinery; loss, $1,250; insurance, $3,000; occupied by Morris Page, as furniture manufacturer; loss, $134; insurance, $1,100; occupied by J. L. Tyler, as trunk manufacturing; loss, $292; insurance, $2,000; originated on 1st floor; cause unknown.

Sunday, 19th, 4–48 P.M. Box 61.

No. 4 WINCHESTER ST. Owned by James Stevenson; loss, $78; insurance, $20,000; occupied by Mrs. M. Sullivan; loss, $100; occupied by Mrs. A. Sullivan; insurance, $100; originated on 4th floor; cause, rats and matches.

Remarks. — Substitute Sullivan, of Engine No. 26, was thrown from hose wagon, breaking his arm.

Sunday, 19th, 6–10 P.M. Box 76.

No. 196 W. SPRINGFIELD ST. Owned by S. Alexander; loss, $55; insurance, $6,000; occupied by same, as dwelling; loss, $75; insurance, $1,000; originated on 5th floor; cause unknown.

Sunday, 19th, 9–04 P.M. Box 214.

No. 24 WOODBURY ST. Owned by J. H. Russell, agent; loss, $22; insurance, $1,500; occupied by Mary Wilson, as dwelling; loss, $10; originated on 1st floor; cause, breaking of kerosene lamp.

Sunday, 19th, 9-20 P.M. Still.

No. 24 NEWLAND ST. Owned by P. O'Loughlin; insurance, $2,500; occupied by A. H. Scales, as dwelling; loss, $30; originated on 1st floor; cause unknown.

Monday, 20th, 5-09 P.M. Still.

No. 69 SALEM ST. Owned by Louis Ginsberg; insurance, $6,500; occupied by J. Silverman, as tenement; originated on 1st floor; cause, smoky stove.

Monday, 20th, 6-52 P.M. Still.

No. 9 WARWICK ST. Cause, fumigating a house; needless alarm.

Monday, 20th, 11-40 P.M. Still.

NEWTON AND WASHINGTON STS. False alarm.

Tuesday, 21st, 2-30 A.M. Still.

No. 11 HAWTHORN ST. Cause, burning rubbish in street; needless alarm.

Tuesday, 21st, 10-10 A.M. Still.

No. 234 NEWBURY ST. Originated in chimney; cause, burning out; needless alarm.

Tuesday, 21st, 1-48 P.M. Box 315.

REAR No. 70 E. COTTAGE ST. Owned by Batchelder heirs; occupied by H. G. Jordan, as coal-shed; originated on roof; cause, sparks from locomotive.

Tuesday, 21st, 4-34 P.M. Box 76.

No. 126 W. NEWTON ST. Owned by T. Kingsbury; loss, $20; insurance, $2,000; occupied by same, as dwelling; insurance, $800; originated on 1st floor; cause, hot ashes in wooden barrel.

Tuesday, 21st, 5-40 P.M. Still.

No. 11 BRADFORD ST. Owned by G. H. Green; insurance, $2,000; occupied by P. Guthrie, as dwelling; loss, $10; originated on 1st floor; cause, breaking of kerosene lamp.

Tuesday, 21st, 10-35 P.M. Still.

No. 156 LEVERETT ST. Owned by Breen heirs; insurance, $2,000; occupied by F. A. McLaughlin, as dwelling; originated on roof; cause, sparks from chimney.

Wednesday, 22d, 1-21 P.M. Box 69.

No. 18 ASHLAND PL. Owned by A. E. Scott, agent; loss, $900; insurance, $6,000; occupied by F. M. Davis, as lodging-house; loss, $500; insurance, $2,000; originated on 2d floor; cause, overheated furnace.

Wednesday, 22d, 4-54 P.M. Box 748.

PHILLIPS SCHOOL-HOUSE. Cause, set by boys; false alarm.

Wednesday, 22d, 5-05 P.M. Still.

WASHINGTON & PELHAM STS. Owned by W. E. R.R. Company; occupied by same, as electric car; originated in car; cause, defective motor.

Wednesday, 22d, 8-54 P.M. Box 425.

NOS. 187-189 MEDFORD ST. Owned by Mrs. M Fall; loss, $475; insurance, $2,500; occupied by Patrick McGown, as leather-dresser; loss, $501; insurance, $11,600; occupied by Edward Jewell & Co., as leather to be dressed; loss, $1,011; insurance, $8,000; originated in boiler-room; cause, overheated boiler.

Remarks. — Laddermen Mitchell, Restarick, Young, and Becker, of Ladder No. 9, cut by glass.

Wednesday, 22d, 10-29 P.M. Box 53.

NOS. 11-23 ELIOT ST. Owned by C. H. Dill; loss, $1,173; insurance, $100,000; occupied by Plymouth Rock Pants Company, as workshop; loss, $3,500; insurance, $48,500; occupied by American Furniture Company, as salesroom; loss, $150; insurance, $5,000; occupied by Chandler & Barber, as hardware; insurance, $27,500; originated on 5th floor; cause unknown.

Thursday, 23d, 6-30 A.M. Still.

NO. 243 BORDER ST. Owned by Mrs. M. O'Brien; insurance, $2,000; occupied by same, as dwelling; originated in chimney; cause, burning of soot.

Thursday, 23d, 10-58 A.M. Box 54.

NO. 75 BEACH ST. Owned by Dr. Walsh; loss, $15; insurance, $6,000; occupied by Mrs. M. Gallagher, as dwelling; occupied by Philip Young, as barber shop; insurance, $500; originated in basement; cause, overheated furnace.

Thursday, 23d, 5-27 P. M. Box 125.

REAR NO. 63 ALGER ST. Owned by James Briggs; loss, $5; occupied by Roger McCarthy, as stable; originated on 1st floor; cause, set by boys.

Thursday, 23d, 8-23 P.M. Box 78.

NO. 58 E. NEWTON ST. Owned by W. Miller; insurance, $4,000; occupied by L. J. Steinburg, as dwelling; cause, gas explosion.

Friday, 24th, 11-35 A.M. Still.

UNITED STATES HOTEL, BEACH ST. Owned by Boston Hotel Company; insurance, $170,000; occupied by same, as hotel; insurance, $38,000; originated in basement; cause, hot ashes in wooden barrel.

Saturday, 25th, 7-40 A.M. Still.

REAR NO. 8 MILK ST. Owned by Professor Minor; loss, $5; occupied by same, as boot-black stand; loss, $5; originated on 1st floor; cause, overheated stove.

Saturday, 25th, 1-32 P.M. Still.

NO. 50 MT. BOWDOIN AVE. Owned by Thomas O'Callaghan; loss, $40; insurance, $11,000; occupied by same, as dwelling; loss, $52; insurance, $1,000; originated on 2d floor; cause, children playing with gas jet.

Saturday, 25th, 4-35 P.M. Box 73.

NO. 1323 WASHINGTON ST. Owned by W. T. Haskell estate; insurance, $65,000; occupied by Amy Smith *et als.*, as dwelling; loss, $25; insurance, $6,500; originated on 2d floor; cause, throwing lighted match on lounge.

Saturday, 25th, 8–20 P.M. Still.

No. 66 ORLEANS ST. Owned by B. & M. R.R. Company; insurance, $800; occupied by J. H. Small, as hay and grain; insurance, $1,000; cause, reflection of lantern in stable; needless alarm.

Saturday, 25th, 10–15 P.M. Box 126.

No. 148 F ST. Owned by Mrs. French; loss, $20; insurance, $2,500; occupied by N. T. Howard, as paint-shop: loss, $31; insurance, $500; originated on 1st floor; cause, spontaneous combustion.

Saturday, 25th, 11–55 P.M. Still.

No. 1 PEACEABLE ST. Owned by G. A. Fuller; loss, $3; insurance, $1,000; occupied by W. F. Rodd, as blacksmith; originated on 1st floor; cause, fire from forge.

Sunday, 26th, 12–20 P.M. Still.

No. 3779 WASHINGTON ST. Owned by Mrs. A. McNulty; insurance, $1,000; occupied by same, as dwelling; insurance, $750; originated on chimney; cause, accidental.

Sunday, 26th, 1–55 P.M. Still.

JUNCTION BROOKLINE AVE. AND MINOR ST. Brush fire; originated on marsh; cause unknown.

Sunday, 26th, 3–33 P.M. Box 54.

No. 17 OXFORD ST. Owned by Geo. Goodenough; insurance, $3,700; occupied by Mrs. Harry J. Oliver, as lodging-house; loss, $30; insurance, $1,000; originated on 4th floor; cause, match dropped on bed.

Sunday, 26th, 5–26 P.M. Still.

No. 54 BOWDOIN ST. Owned by New Jerusalem Church; loss, $3; insurance, $8,000; occupied by Geo. A. Tuttle, as dwelling; loss, $73; insurance, $1,000; originated on 1st floor; cause, child and matches.

Sunday, 26th, 5–28 P.M. Still.

No. 16 BENNETT ST. Owned by I. F. Dabson; insurance, $6,000; occupied by James Drinen, as bakery; loss, $15; occupied by J. W. Ritchie, as dwelling; originated on awning; cause, cigar thrown on to awning.

Sunday, 26th, 5–50 P.M. Still.

No. 1 HIGHLAND PL. Owned by Alonzo Dexter; insurance, $2,500; occupied by M. S. Simmons, as dwelling; loss, $11; insurance, $1,000; originated on 3d floor; cause, lace curtain and gas jet.

Sunday, 26th, 8–25 P.M. Still.

No. 133 B ST. Owned by J. C. Meins; loss, $5; insurance, $3,000; occupied by Patrick Wren *et als.*, as dwelling; insurance, $500; originated on 2d floor; cause unknown.

Sunday, 26th, 8–30 P.M. Still.

OPPOSITE 314 DOVER ST. Originated in street; cause, boys burning rubbish.

Monday, 27th, 5-51 A.M. Box 113.

No. 133 B ST. No. 133 owned by Jane C. Meins; insurance, $1,000; No. 135 owned by Jane C. Meins; loss, $160; insurance, $1,000; No. 131 owned by Jane C. Meins; insurance, $1,500; No. 133 occupied by Patrick Wren, as dwelling; loss, $57; insurance, $500; No. 133 occupied by James Dolan, as dwelling; loss, $20; insurance, $500; No. 131 occupied by Jessie R. Mason, as dwelling; loss, $5; insurance, $500; No. 131 occupied by John Carty, as dwelling; loss, $29; insurance, $500; originated on 3d floor; cause, supposed incendiary.

Remarks. — Suspicious circumstances in connection with this fire, there being three different fires within twenty-four hours.

Ladderman J. W. Bird, Truck 5, had thumb cut by an axe.

Monday, 27th, 10-45 A.M. Still.

No. 87 LIVERPOOL ST. Owned by John D. Hurley; insurance, $1,800; occupied by Ed. Holland, as tenement; originated on 3d floor; cause unknown.

Monday, 27th, 11-02 A.M. Still.

PARK SQ. Owned by West End R.R. Company; occupied by same, as electric car; originated on car; cause, overheated rheostat.

Monday, 27th, 4-45 P.M. Box, none.

No. 23 PITTS ST. Owned by A. N. Funklestein; loss, $16; insurance, $4,000; occupied by David Campbell, as dwelling; loss, $6; insurance, $1,000; originated on 4th floor; cause, supposed breaking of lamp.

Remarks. — David Campbell severely burnt, hospital, died afterwards. Margaret Campbell found burnt to death. Department did not receive a call to this fire; burnt itself out.

Monday, 27th, 5-30 P.M. Still.

No. 10 WHITTIER ST. Owned by T. Hall, agent; insurance, $2,000; occupied by E. B. Allen, as dwelling; originated on 1st floor; cause, match dropped on a broom.

Monday, 27th, 7-05 P.M. Box 4.

Nos. 147-153 CAUSEWAY ST. Owned by Thomas Butler; loss, $294; insurance, $4,000; occupied by Max Goldburg, as clothing; loss, $350; insurance, $800; occupied by Anderson & Knights, as barber shop; loss, $35; insurance, $200; occupied by P. Kearins, as liquors; loss, $75; insurance, $3,000; originated on 3d floor; cause unknown.

Monday, 27th, 7-55 P.M. Still.

No. 285 MAIN ST. Owned by Isaac Klous; occupied by A. Taylor, as dining-room; loss, $10; originated on 1st floor; cause, explosion of oil-stove in the window.

Monday, 27th, 8-29 P.M. Box 5.

No. 26 LOWELL ST. Owned by John Riley; insurance, $3,000; occupied by Samuel Cohen, as shoe store; loss, $75; insurance, $300; originated in basement; cause, breaking of oil lamp.

Tuesday, 28th, 3-15 A.M. Still.

No. 155 W. BROADWAY. Owned by Bridget Neary; insurance, $2,500; occupied by Miss E. M. Lane, as dry goods; loss, $2; originated on 1st floor; cause, unknown.

Tuesday, 28th, 8-31 A.M. Still.

OLD COLONY RAILROAD REPAIR SHOP. Needless alarm.

Tuesday, 28th, 11-19 A.M. Box 76.

No. 704 TREMONT ST. Owned by E. F. Coleman; loss, $20; insurance, $5,000; occupied by European staff of physicians, as dwelling; originated on 1st floor; cause, overheated furnace.

Tuesday, 28th, 3-45 P.M. Watkins' Automatic.

No. 103 ENDICOTT ST. Owned by Waite & Bond; insurance, $20,000; occupied by same, as cigar factory; originated in basement; cause, overcharged thermostat.

Tuesday, 28th, 5-01 P.M. Box 827.

No. 27 MECHANIC ST. Owned by Nahum Thayer; loss, $60; insurance, $3,300; occupied by same, as dwelling; loss, $10; insurance, $800; originated on 1st floor; cause, drying clothes near hot stove.

Tuesday, 28th, 8-27 P.M. Box 28.

No. 51 COMMERCIAL ST. Owned by Silas Pierce; loss, $442; insurance, $15,000; occupied by Webster Form Company, as Form Manufactory; loss, $1,135; insurance, $2,400; occupied by Utley & Rogers, as commission merchants; loss, $500; insurance, $10,000; occupied by E. M. Hastings, as wood-carver; loss, $13; insurance, $800; occupied by H. R. Atwood, as oyster dealer; insurance, $1,500; originated on 5th floor; cause, probably incendiary.

Wednesday, 29th, 6-50 P.M. Box 191.

No. 14 HOWES ST. Owned by L. M. Baker; occupied by A. M. Graham, as dwelling; originated on front porch; cause, breaking of kerosene oil lamp.

Wednesday, 29th, 10-24 P.M. Box 54.

Nos. 63-65 ESSEX ST. Owned by Kimball heirs; loss, $1,775; insurance, $47,500; occupied by Whitney Bros., as paper dealers; loss, $60; insurance, $16,000; occupied by Wheelock Manufacturing Company, as factory; loss, $5,541; insurance, $11,500; occupied by E. L. Joslin & Co., as dress forms; loss, $193; insurance, $4,000; occupied by L. Sneider & Co., as tailor; insurance, $1,000; originated on 2d floor; cause unknown.

Thursday, 30th, 11-45 A.M. Still.

No. 168 LINCOLN ST. Owned by A. D. Puffer; loss, $85; insurance, $3,000; occupied by C. L. Richardson, as grocer; insurance, $13,500; occupied by A. McDonald, as awnings; loss, $15; insurance, $1,200; occupied by H. H. Tilton, as fireworks; loss, $300; occupied by M. Hollyer, as store-room; insurance, $800; occupied by T. D. Cook, as store-room; loss, $50; insurance, $300; originated on 2d floor: cause unknown.

Thursday, 30th, 3-45 P.M. Box 21.

No. 98 COURT ST. Owned by Shaw heirs; loss, $73; insurance, $10,000; occupied by S. J. Doughaw, as photographer; insurance, $1,500; originated on 3d floor; cause, incendiary.

Thursday, 30th, 5–11 P.M. Still.

No. 20 ADAMS PL. Owned by Elizabeth R. Hayes; insurance, $1,-450; unoccupied; originated on 1st floor; cause, upsetting of stove for drying plastering.

DECEMBER.

Friday, 1st, 2–52 A.M. Box 361.

TALBOT AVE. Owned by J. A. Hendrie & Bro.; loss, $868; insurance, $12,000; occupied by same, as restaurant; loss, $50; originated on 1st floor; cause, rats and matches.

Friday, 1st, 3–05 A.M. Box 927.

LEARNED & DICKENS STS. No 30 Learned st.; owned by Edward Mahan; loss, $250; insurance, $250; No. 3 Learned court, owned by Martin Maguire; loss, $175; insurance, $1,200; rear Learned st., owned by Margaret Mahan; loss, $80; insurance, $1,000; rear 42 Dickens st., owned by Johannah Denehy; loss, $325; insurance, $2,000; No. 30, occupied by Edward Mahan, as stable; loss, $440; insurance, $470; No. 3, occupied by Martin Maguire, as dwelling; loss, $30; rear unoccupied, as dwelling; rear 42, unoccupied, as stable; originated in stable, No. 30 Learned st.; cause, incendiary.

Friday, 1st, 3–17 A.M. Box 218.

Nos. 2278–2280 WASHINGTON ST. Owned by Moses heirs; loss, $435; insurance, $13,000; occupied by Thomas Doyle, as undertaker; loss, $400; insurance, $1,250; occupied by Cohen & Finklestein, as clothing; loss, $1,633; insurance, $10,000; originated in basement; cause, overheated furnace-pipe.

Friday, 1st, 6–55 A.M. Still.

No. 760 WASHINGTON ST. Owned by Blanchard heirs; insurance, $2,500; occupied by T. Daly & Co., as liquors; insurance, $10,000; occupied by H. E. Rand, as barber shop; insurance, $1,000; originated in cellar; cause, gas explosion.

Remarks. — John McCarthy severely burned by explosion of gas.

Friday, 1st, 9–17 A.M. Still.

No. 63 SALEM ST. Owned by L. Ginsburg; insurance, $2,000; occupied by Joseph Stengle, as tenement; originated on top floor; cause, upsetting of kerosene-oil stove.

Friday, 1st, 4–10 P.M. Still.

No. 63 PHILLIPS ST. Owned by Elizabeth Adams; occupied by G. E. Roberts, as dwelling; originated on 3d floor; cause, kerosene-oil stove taking fire.

Remarks. — Hoseman Kelley, of Hose 8, fractured his foot in stepping off the wagon.

Friday, 1st, 9–22 P.M. Box 122.

ALGER ST. Owned by E. W. Walker; loss, $643; insurance, $1,000; occupied by same, as stable; loss, $300; insurance, $2,300; occupied by Mrs. J. C. Clancey, as stable; loss, $155; insurance, $1,000; originated on 2d floor; cause unknown.

Friday, 1st, 10-35 P.M. Still.

WREN ST. Owned by Mary A. Farrington; loss, $9; insurance, $2,000; occupied by Judge Howard, as dwelling; insurance, $1,000; originated on 2d floor; cause, upsetting lamp.

Saturday, 2d, 7-28 A.M. Box 453.

Nos. 515-517 MAIN ST. Owned by Cunningham heirs; loss, $12; insurance, $2,000; occupied by J V. Steel, as stoves; loss, $10; insurance, $3,000; originated on 1st floor; cause, explosion of oil stove.

Saturday, 2d, 7-39 A.M. Box 61.

No. 83 PLEASANT ST. Owned by G. R. White; loss, $25; insurance, $6,000; occupied by Mrs. J. Robertson, as bakery; insurance, $1,000; originated on 1st floor; cause, gas jet igniting clothing.

Saturday, 2d, 10-46 A.M. Still.

No. 18 HAYWARD PL. Owned by Mrs. E. Pitt; insurance, $5,000; occupied by Geo. A. Harris, as caterer; insurance, $1,000; originated in chimney; cause, smoky chimney.

Saturday, 2d, 4-26 P.M. Box 76.

No. 94 PEMBROKE ST. Owned by A. H. Stearns; loss, $119; insurance, $5,000; occupied by J. Holland, as dwelling; loss, $75; insurance, $3,000; originated on 1st floor; cause, defective furnace.

Saturday, 2d, 9-30 P.M. Box 465.

B. & M. R.R., CAMBRIDGE-ST. YARD. Owned by Pullman Car Company (palace car "Maud"); loss, $25; originated in oil tank; cause, explosion of oil tank.

Sunday, 3d, 1-08 A.M. Box 432.

REAR Nos. 1-3 MASON PL. No. 1, owned by M. L. White; loss, $20; No. 3, owned by Mrs. I. W. Derby; loss, $20; No. 1, occupied by same, as ash-house; No. 3, occupied by same, as ash-house; originated in ash barrel; cause, hot ashes thrown into wood barrel.

Sunday, 3d, 2-25 A.M. Box 925.

REAR BOWDOIN ST. Owned by a land company; occupied by unknown, as storage of paints; originated in cellar; cause, spontaneous combustion oily rags.

Sunday, 3d, 11-24 A M. Box 121.

No. 40 ATHENS ST. Owned by Margaret Flaherty; loss, $830; insurance, $3,000; occupied by same, as dwelling; loss, $100; originated on 1st floor; cause, careless use of matches.

Monday, 4th, 4-59 A.M. Still.

No. 12 GREEN ST. Owned by R. G. Shaw heirs, loss, $212; insurance, $8,000; occupied by N. B. Nalbandian, as fruits; loss, $400; insurance, $600; occupied by J. Murdock, as lodgings; loss, $20; originated on 1st floor; cause, supposed incendiary.

Tuesday, 5th. Still.

No. 414 PARKER ST. Owned by John Sheehan; insurance, $5,000; occupied by same, as dwelling; insurance, $2,000; originated in chimney; cause, soot burning.

Tuesday, 5th, 4–23 A.M. Box 62.

NO. 154 BOYLSTON ST. Owned by Welch estate; loss, $2,751; insurance, $20,000; occupied by Murdock Grate Company, as salesroom; loss, $24,833; insurance, $39,500; occupied by Howard Dental Company, as office; loss, $700; insurance, $2,500; originated in basement; cause unknown.

Tuesday, 5th, 3–20 P.M. Still.

CHARLES ST. Owned by West End Railroad Company; occupied by same, as electric car; originated under car; cause, electricity.

Tuesday, 5th, 3–41 P.M. Still.

NO. 23 MARGARET ST. Owned by M. Berenson; insurance, $8,500; occupied by same, as tenement; originated on 2d floor; cause, children and matches.

Tuesday, 5th, 5–03 P.M. Still.

INDIA WHARF. Owned by Portland Steamboat Packet Company; loss, $260; insurance, $196,500; occupied by same, as steamboat "Portland;" originated on saloon deck; cause, smoke-pipe igniting wooden partition.

Tuesday, 5th, 6–34 P.M. Box 25.

WEST END CITY STABLE YARDS. Owned by City of Boston; loss, $20; occupied by Board of Health, as office; loss, $50; originated on 1st floor; cause, spontaneous combustion.

Tuesday, 5th, 9–06 P.M. Watkins Automatic.

NO. 36 CHARLESTOWN ST. Owned by Arioch Wentworth; insurance, $2,000; occupied by Holmes & Blanchard, as machinery; insurance, $24,000; originated on top floor; cause, water leaking in thermostat.

Tuesday, 5th, 11–42 P.M. Box 633.

GOVE ST., NEAR PARIS. False alarm.

Wednesday, 6th. Still.

NO. 44 MIDDLESEX ST. Owned by George J. Wardwell; insurance, $2,500; occupied by Mrs. Mary Kemp, as lodgings; loss, $15; originated on 2d floor; cause, explosion of kerosene lamp.

Wednesday, 6th, 1–45 A.M. Still.

NO. 56 MORELAND ST. Owned by John P. Manning; occupied by same, as dwelling; originated in basement; cause, explosion of gas.
Remarks. — No fire; house shattered by explosion.

Wednesday, 6th, 11–20 A.M. Box 74.

NO. 13 DEDHAM ST. Owned by M. H. Williams; insurance, $25,000; occupied by Mrs. F. L. Rogers, as dwelling; insurance, $1,500; occupied by Miss G. E. Jameson, as dwelling; insurance, $1,000; originated on 1st floor; cause, explosion of kerosene-oil stove.

Wednesday, 6th, 12–12 P.M. Box 618.

NO. 41 HAYNES ST. Owned by Elbe Scribner heirs; occupied by William Johnson and others, as dwelling; originated on 1st floor; cause, children and matches.

Wednesday, 6th, 2-17 P.M. Box 56.

Nos. 155 and 157 KNEELAND ST. Owned by Boston & Albany R.R. Company; loss, $239; insurance, $3,800; occupied by H. Collin, as cigars; loss, $2,500; insurance, $6,000; occupied by S. M. Caro & Son, as clothing; insurance, $3,500; originated in basement; cause unknown.

Wednesday, 6th, 5-11 P.M. Box 549.

No. 78 CALL ST. Owned by John Nolan; insurance, $800; occupied by same, as dwelling; originated in basement; cause, combustion of oily rags.

Wednesday, 6th, 6-35 P.M. Still.

NEW PUBLIC LIBRARY, BOYLSTON ST. Owned by City of Boston; occupied by same, as library; needless alarm; cause, supposed fire.

Thursday, 7th, 5-33 A.M. Box 135.

No. 518 and 519 EAST EIGHTH ST. Owned by McMahon heirs; loss, $504; insurance, $3,000; occupied by M. D. Everson, as groceries; loss, $900; insurance, $1,000; occupied by A. C. Hollfelder, as dwelling; loss, $10; originated on 1st floor; cause, dropping of lighted kerosene lamp.

Thursday, 7th, 6-13 A.M. Box 633.

COR. MAVERICK AND DECATUR STS. Owned by Methodist Society; loss, $4,125; insurance, $21,000; occupied by same, as Bethel; loss, $466; insurance, $5,000; originated in boiler-room; cause, overheated boiler.

Thursday, 7th, 10-21 A.M. Box 629.

REAR No. 78 BORDER ST. Owned by Wm. M. McKie, steamboat "Bangor;" loss, $27,000; insurance, $85,000; occupied by Atlantic Works, as boiler and tools; loss, $2,250; insurance, $40,000; occupied by Fletcher Machine Company, as machinery-room; loss, $1,230; insurance, $50,000; originated on main deck; cause, spontaneous combustion of painter's supplies.

Remarks. — John Muir was burned about the face and hands.

Thursday, 7th, 12-20 P.M. Still.

No. 61 BEACH ST. Owned by James W. French & Sons; insurance, $5,500; occupied by John Mellow, as lodgings; loss, $39; insurance, $1,500; originated on 3d floor; cause, woman's dress taking fire.

Remarks. — Mrs. Louisa Bowen burned to death by her dress.

Thursday, 7th, 5 P.M. Box 336.

No. 201 WASHINGTON ST. Owned by J. I. Stewart; loss, $25; insurance, $11,000; occupied by Fred. Brown, as dwelling; loss, $44; insurance, $2,000; originated on 2d floor; cause, children and matches.

Thursday, 7th, 5-03 P.M. Still.

COLUMBUS AVE. Owned by W. E. R.R. Company; occupied by same, as car; originated in car; cause, hot box.

Thursday, 7th, 8-40 P.M. Still.

WARREN DRAWBRIDGE. Cause, leak in gas main; needless alarm.

Thursday, 7th, 9-20 P.M. Box 212.

No. 18 ORANGE COURT. Owned by Bridget Donlon heirs; loss, $200; occupied by James Donlon, as dwelling; loss, $25; originated on 1st floor; cause unknown.

Thursday, 7th, 9–25 P.M. Still.

No. 2 HIGH ST. Owned by Alfred A. Dow; occupied by F. W. Micher, as leather; originated on 5th floor; cause, light mistaken for fire; needless alarm.

Thursday, 7th, 9–30 P.M. Still.

No. 16–24 OLIVER ST. Owned by Alvah A. Burrage; occupied by Walworth Manufacturing Company, as store; insurance, $152,000; originated on roof; cause, sparks from chimney.

Friday, 8th, 6–28 A.M. Box 215.

No. 102 HAMMOND ST. Owned by P. B. Watson; insurance, $3,000; occupied by F. D. Wyman, as dwelling; loss, $10; originated on 2d floor; cause, hot ashes in wooden box.

Friday, 8th, 10–04 A.M. Box 74.

No. 40 EAST CANTON ST. Owned by S. L. Boland; loss, $100; insurance, $3,000; occupied by same, as dwelling; loss, $40; originated on 1st floor; cause, defective furnace.

Friday, 8th, 8–50 P.M. Box 12.

Nos. 38 AND 40 BEVERLY ST. 38–40, owned by Henry Murray; loss, $421; insurance, $1,000; 34–36 owned by J. G. Lamont; loss, $41; insurance, $500; 38–40, occupied by E. Betts, as stair-builder; 38–40, occupied by T. Wilson, as carpenter; loss, $623; insurance, $1,300; 38–40, occupied by Guindon & Durant, as coppersmiths; loss, $485; insurance, $8,200; 34–36, occupied by J. G. Lamont, as cornices; 34–36, occupied by R. H. Hill, as carver; loss, $15; insurance, $125; originated on 2d floor; cause, defective chimney.

Friday, 8th, 8–54 P.M. Box 62.

No. 121 ELIOT ST. Owned by James Stevenson; loss, $75; insurance, $5,500; occupied by McKenzie & Elwood, as carpenters; loss, $25; occupied by Healy & Co., as gas-fitters; loss, $180; insurance, $400; occupied by Perkins, as wall paper; insurance, $1,500; occupied by M. Matthews, as restaurant; insurance, $500; originated on 2d floor; cause unknown.

Saturday, 9th, 1–19 A.M. Box 214.

REAR NO. 2 HUNNEMAN ST. Owned by Louis Bernson; loss, $100; insurance, $500; occupied by Joseph Harris, as stable; loss, $349; insurance, $1,500; originated on 1st floor; cause, incendiary.

Remarks. — One horse smothered and one burned.

Saturday, 9th, 9–04 A.M. Box 41.

No. 150 DEVONSHIRE ST. Owned by Equitable Life Assurance Society; insurance, $100,000; occupied by same, as boiler-room; originated in basement; cause, burst steam-pipe mistaken for fire; needless alarm.

Saturday, 9th, 5–37 P.M. Box 65.

No. 41 LINCOLN ST. Owned by Daniel Madden; loss, $6; insurance, $3,500; occupied by Patrick Kane, as tenement; loss, $4; originated on 2d floor; cause, explosion of kerosene lamp.

Saturday, 9th, 8–29 P.M. Box 528.

False alarm.

Sunday, 10th, 1–50 P.M. Still.

No. 34 SHEAFE ST. Owned by John Farren; loss, $15; insurance, $2,000; occupied by same, as dwelling; originated in cellar; cause, imperfect furnace.

Sunday, 10th, 5–50 P.M. Still.

No. 522 DORCHESTER AVE. Owned by Martha T. Abbott; occupied by Mrs. Smith and others, as dwelling; originated in cellar; cause, set by a boy.

Monday, 11th, 2–35 P.M. Still.

No. 21 EAST LENOX ST. Owned by T. L. Connolly; loss, $10; insurance, $1,500; occupied by Mrs. Mary Merrill, as dwelling; originated on 2d floor; cause, drying wood in oven.

Monday, 11th, 6–14 P.M. Box 62.

No. 5 TENNYSON ST. Owned by James Stevenson; loss, $100; occupied by James Bailey, as lodgings; loss, $200; originated on 2d floor; cause, overheated stove.

Monday, 11th, 7–56 P.M. Box 24.

No. 75 CAMBRIDGE ST. Owned by E. C. Granville; loss, $27; insurance, $500; occupied by Mrs. Rose Quinn, as dwelling; loss, $50; occupied by J. Dacey, as dwelling; loss, $5; originated on 3d floor; cause, overheated stove.

Monday, 11th, 8–21 P.M. Box 57.

No. 58 HARVARD ST. Owned by J. Quinn; loss, $335; insurance, $3,000; occupied by Mrs. C. Randall, as lodgings; loss, $100; originated on 3d floor; cause unknown.

Remarks. — John Gerry was found burned to death.

Monday, 11th, 8–52 P.M. Box 243.

No. 8 ROXBURY TERRACE. Owned by Thomas Hall, agent; loss, $247; insurance, $3,800; occupied by R. McPherson, as dwelling; loss, $100; insurance, $500; originated on 2d floor; cause unknown.

Remarks. — Box 221 pulled for same fire.

Monday, 11th, 8–55 P.M. Still.

No. 585 WASHINGTON ST. Owned by A. Shuman; loss, $33; insurance, $49,000; occupied by Chas. Green & Co., as tailors; insurance, $15,000; originated on 1st floor; cause unknown.

Monday, 11th, 11–45 P.M. Still.

154 CHANDLER ST. Needless alarm.

Tuesday, 12th, 8–50 A.M. Still.

No. 8 HUCKINS AVE. Owned by F. W. Todd; loss, $30; insurance, $3,700; occupied by H. M. Amsbury, as dwelling; loss, $50; originated on third floor; cause unknown.

Tuesday, 12th, 4–15 P.M. Box 24.

No. 30 GARDEN ST. Owned by C. E. Stratton; loss, $95; insurance, $3,000; occupied by Miss Julia S. Williams, as dwelling; originated on 3d floor; cause, child playing with matches.

Remarks. — An orphan child, three years old, named John Smith, found burned to death.

Tuesday, 12th, 5-20 P.M. Still.

No. 10 STANIFORD ST. Needless alarm.

Tuesday, 12th, 5-30 P.M. Still.

No. 76 WINTHROP ST. Owned by Gibby & Caldwell; unoccupied; originated on 2d floor; cause, fire in open grate igniting woodwork.

Tuesday, 12th, 7-02 P.M. Box 125.

No. 3 WOODWARD ST. Owned by Martha T. Abbott; occupied by Michael Powers, as dwelling; originated in cellar; cause, set by boys in wood-pile.

Tuesday, 12th, 8-56 P.M. Still.

REAR NO. 625 DORCHESTER AVE. Owned by L. H. Hempe; loss, $20; occupied by same, as carpenter; loss, $5; originated on 1st floor; cause, overheated stove.

Wednesday, 13th, 8-25 A.M. Still.

COR. FOUNDRY AND DIVISION STS. Owned by Wm. J. Loney; occupied by M. Renison & Co., as wheelwrights; originated on roof; cause, sparks from chimney.

Wednesday, 13th, 8-51 A.M. Box 214.

No. 1999 WASHINGTON ST. Owned by Davis estate; insurance, $2,000; occupied by H. M. Hall, as boots and shoes; loss, $147; insurance, $4,000; originated on 1st floor; cause, Brookline Gas Company's employees.

Wednesday, 13th, 9-26 A.M. Still.

COR MILL AND WEBSTER ST. False alarm.

Wednesday, 13th, 9-54 A.M. Still.

No. 42 BERLIN ST. Owned by A. Conant; loss, $12; insurance, $1,000; occupied by James Shay, as dwelling; originated on 1st floor; cause, thawing of water-pipes.

Wednesday, 13th, 3-40 P.M. Still.

OPP. 1764 WASHINGTON ST. Originated on cut-out box; cause, overcharged wire.

Wednesday, 13th, 4-50 P.M. Still.

No. 154 TREMONT ST. Owned by Lawrence estate; insurance, $100,000; occupied by Julius Fellner, as restaurant; insurance, $5,000; originated on 1st floor; cause, gas-jet igniting gauze; needless alarm.

Wednesday 13th, 5-35 P.M. Still.

No. 17 EXETER ST. Owned by L. M. Chamberlain; insurance, $10,000; occupied by Mrs. M. A. Snow, as dwelling; insurance, $5,000; originated on 1st floor; cause, thawing of water-pipes.

Wednesday, 13th, 5-54 P.M. Box 69.

No. 35 ROCHESTER ST. Owned by Mrs. M. O'Connell; insurance, $5,000; occupied by same, as dwelling; insurance, $2,000; originated in chimney; cause, soot burning.

Wednesday, 13th, 7–48 P.M. Box 64.

No. 16 Indiana pl. Owned by Frederick Jenkins estate; loss, $375; insurance, $4,000; occupied by Mrs. Julius Arkin, as dwelling; loss, $125; insurance, $1,000; originated on 3d floor; cause, hot ashes in wooden box.

Wednesday, 13th, 9–12 P.M. Box 53.

No. 208 Tremont st. Owned by James Stevenson; loss, $9; insurance, $15,000; occupied by Mrs. Dr. Barden, as office; loss, $18; insurance, $635.

Wednesday, 13th, 10–48 P.M. Box 134.

No. 118 Gold st. Owned by E. W. Barry; loss, $5; occupied by J. Barry, as stable; originated on 1st floor; cause unknown.

Thursday, 14th, 3–40 A.M. Box 315.

No. 125 Brook ave. Owned by Patrick Meegan; loss, $18; insurance, $4,000; occupied by same, as dwelling; loss, $4; insurance, $1,000; originated on 1st floor; cause, upsetting kerosene lamp.

Thursday, 14th, 7–25 A.M. Still.

India wharf. Owned by Metropolitan Steamship Company; occupied by freight and passenger boats; originated between decks; cause, probably spontaneous.

Thursday, 14th, 7–58 A.M. Box 418.

Fitchburg R.R. yard. Owned by Central Vt. R.R. Company; blanket policy; occupied by Nelson & Clark, as potato car; loss, $10; originated in car; cause, overheated stove.

Thursday, 14th, 9–05 A.M. Box 73.

No. 1296–1300 Washington st. Owned by L. R. Cutter; loss, $1,550; insurance, $30,000; 1296, owned by L. R. Cutter; 1300, occupied by Nathan Hilton *et als.*, as dwelling and restaurant; loss, $115; insurance, $1,100; 1296, occupied by L. Marks, as dwelling; loss, $38; insurance, $1,800; originated on 2d floor; cause, defective flue.

Thursday, 14th, 9–38 A.M. Box 129.

No. 40 W. Fifth st. Owned by Morris Curry; loss, $21; insurance, $1,500; occupied by John Ring, as dwelling; originated on 2d floor; cause, sparks from stove.

Thursday, 14th, 10–05 A.M. Still.

Mason st. Owned by City of Boston; occupied by Fire Department, as Engine 26; originated on 1st floor; cause, igniting of fuel in boiler.

Thursday, 14th, 12–47 P.M. Box 25.

No. 28 N. Anderson st. Owned by W. Shapiro; loss, $187; insurance, $4,000; occupied by Mrs. G. Simmons, as dwelling; loss, $150; occupied by Mrs. C. Mahan, as dwelling; loss $5; occupied by Mrs. Colsen, as dwelling; loss, $5; originated on 1st floor; cause, thawing of water-pipes.

Thursday, 14th, 2–05 P.M. Still.

No. 15 TREMONT ROW. Owned by P. C. Brooks; occupied by Wilson Bros., as jewelry; originated in basement; cause, overheated chimney.

Thursday, 14th, 3–18 P.M. Box 57.

No. 100 TYLER ST. Owned by Dr. Kohan; loss, $175; insurance, $9,000; occupied by same, as dwelling; originated on 1st floor; cause, thawing water-pipes.

Thursday, 14th, 4–50 P.M. Still.

No. 141 ROXBURY ST. Occupied by St. Luke Home, as hospital; originated in chimney; cause, soot burning.

Thursday, 14th, 5–52 P.M. Automatic.

No. 297 CONGRESS ST. Owned by Mrs. Grace D. C. Estes; insurance, $35,000; occupied by various parties, as printers, etc.; originated on 6th floor; cause, overheated thermostat; needless alarm.

Thursday, 14th, 6–38 P.M. Box 48.

No. 33 HIGH ST. Owned by James S. Stone; occupied by M. H. Merriam, as shoe findings; originated on 2d floor; cause, open fire in grate mistaken for a fire; needless alarm.

Thursday, 14th, 8–15 P.M. Still.

No. 69 ADAMS ST. Owned by F. W. G. May; insurance, $2,500; occupied by same, as dwelling; loss, $20; insurance, $2,800; originated on 2d floor; cause, defective fireplace.

Thursday, 14th, 10–15 P.M. Still.

TREMONT ROW. Owned by W. E. R.R. Company: occupied by same, as car; originated under body of car; cause, electricity.

Friday, 15th, 5 A.M. Still.

No. 109 RIVER ST. Owned by Patrick Fallon; occupied by same, as dwelling; originated in cellar; cause, defective stove-pipe.

Friday, 15th, 10–43 A.M. Still.

No. 493 WASHINGTON ST. Owned by Blake heirs; loss, $3; insurance, $60,000; occupied by Freeman & Taylor, as jewellers; insurance, $12,000; originated on 3d floor; cause, explosion of oil-stove.

Friday, 15th, 5–07 P.M. Box 214.

No. 641 SHAWMUT AVE. Owned by L. Lowell; loss, $20; insurance, $4,000; occupied by F. Sprueill, as wood and coal; loss, $15; originated in cellar; cause, kerosene-oil stove taking fire.

Friday, 15th, 6–20 P.M. Still.

WASHINGTON ST. Owned by W. E. R.R. Company; occupied by same, as electric car; originated under car; cause, electricity.

Friday, 15th, 8–15 P.M. Still.

No. 166 WEST CHESTER PARK. Needless alarm.

Saturday, 16th, 12-52 A.M. Still.

No. 271 Albany st. Owned by Armstrong Transfer Company; loss, $302; insurance, $50,000; occupied by same, as stable; loss, $182; insurance, $70,000; originated in basement; cause, spontaneous combustion in canvas covers.

Saturday, 16th, 8-30 A.M. Still.

No. 1217 Washington st. Needless alarm.

Saturday, 16th, 3-45 P.M. Still.

No. 65 Bedford st. Owned by Fred L. Ames estate; insurance, $423,750; occupied by R. H. White & Co., as wholesale store; insurance, $600,000; originated on 1st floor; cause, burning out of fire-alarm box No. 793.

Saturday, 16th, 5-44 P.M. Still.

No. 7 South Margin st. Owned by John Cohen; occupied by Mrs. Wiseman, as dwelling; originated on 2d floor; cause, gas leak.

Saturday, 16th, 6-20 P.M. Still.

Rear No. 37 Anderson st. Owned by R. H. Bowman; loss, $45; insurance, $5,000; occupied by Mrs. I. Smith, as dwelling; originated on 2d floor; cause, explosion of oil lamp.

Saturday, 16th, 9 P.M. Still.

No. 576 Washington st. Owned by A. Wentworth; loss, $40; insurance, $10,000; occupied by Cushing Process Company, as liquors; insurance, $10,000; originated on 2d floor; cause, woodwork near chimney.

Saturday, 16th, 10-13 P.M. Still.

No. 729 Washington st. Owned by Peter Parker heirs; insurance, $27,250; occupied by Standard Furniture Company, as furniture store; insurance, $10,000; occupied by C. W. Wingate, as jewelry; insurance, $2,500; originated on outside of building; cause, electric-light wires crossed.

Remarks. — Ladderman McDonough, of Ladder 17, slipped on icy pavement and injured his shoulder.

Saturday, 16th, 10-15 P.M. Still.

No. 26 North Anderson st. Owned by W. Shaperio; loss, $30; insurance, $3,000; occupied by M. Murray, as dwelling; originated in basement; cause, lamp setting fire to chimney.

Sunday, 17th, 12-05 A.M. Still.

No. 729 Washington st. Owned by Peter Parker heirs; insurance, $27,250; occupied by Standard Furniture Company, as furniture; insurance, $10,000; occupied by C. W. Wingate, as jewelry; insurance, $2,500; originated on outside of building; cause, electric-light wires.

Sunday, 17th, 2-18 A.M. Still.

No. 5 Norman st. Owned by S. Sodekson; occupied by J. Jacobs, as club-room; originated on 1st floor; cause, breaking of lamp.

Sunday, 17th, 5-50 A.M. Still.

No. 176 Tremont st. Owned by Abbey, Schoeffel, & Grau; occupied by same, as Tremont Theatre; originated on outside of building; cause, short circuiting of electric wires.

Sunday, 17th, 5-38 P.M. Still.

No. 7 SAMOSET PL. Owned by J. McBride; loss, $10; insurance, $1,000; occupied by M. Clark, as tenement; loss, $5; originated on 2d floor; cause, upsetting of kerosene lamp.

Monday, 18th, 8-23, 8-26 A.M. Box 35.

No. 14 BOSWORTH ST. Owned by G. D. Sargent; loss, $155; insurance, $12,000; occupied by Boston Press Club, as club-room; loss, $311; insurance, $3,000; originated on 4th floor; cause, supposed electric wire.

Remarks.—Policeman Morrissey, Station 2, pulled the second time, because apparatus did not respond as quick as he thought they should, causing second alarm to be given.

Monday, 18th, 12-02 P.M. Box 428.

CHELSEA DRAWBRIDGE. Owned by City of Boston; occupied by same, as drawbridge; originated on bridge; cause, burning of electric wires of Lynn & Boston R.R.

Monday, 18th, 2-35 P.M. Still.

COR. TREMONT AND MASON STS. Owned by West End R.R. Company; occupied by same, as car; originated in car; cause, burning out of rheostat.

Tuesday, 19th, 6-36 A.M. Box 981.

ERICSON ST. Owned by Putnam Nail Company; loss, $237; insurance, $100,000; blanket policy; occupied by same, as storage of naphtha; loss, $3,123; insurance, $300,000; blanket policy; originated on 1st floor; cause, leak in pipe connection.

Tuesday, 19th, 12-27 P.M. Box 37.

NOS. 80 AND 82 SO. MARKET ST. Owned by Wm. P. Kuhn; loss, $2,131; insurance, $8,000; occupied by R. T. & M. K. Green, as eggs, butter, etc.; loss, $20,410; insurance, $42,000; occupied by Eldridge, Baker, & Bair, as groceries; loss, $615; insurance, $50,000; originated on 1st floor; cause, probably, electric-light wires.

Tuesday, 19th, 12-27 P.M. Box 35.

NO. 29½ TREMONT ST. Owned by Corey heirs; occupied by Page & Waining, as dentists; originated on 2d floor; cause, breaking of oil lamp.

Tuesday, 19th, 3-20 P.M. Still.

REED ST. Owned by Hiram Johnson; occupied by A. W. Davis, as blacksmith; originated on 1st floor; cause unknown.

Tuesday, 19th, 4-56 P.M. Automatic.

NOS. 82 AND 84 CANAL ST. Cause unknown; false alarm.

Tuesday, 19th, 6-17 P.M. Box 54.

NO. 19 HARRISON AVE. Owned by John H. Pray & Sons Co.; loss, $389; insurance, $20,000; occupied by Basch & Goldstein, as hats and caps; loss, $1,617; insurance, $2,000; originated on 3d floor; cause unknown.

Wednesday, 20th, 5-06 A.M. Box 28.

NEW ENGLAND HOUSE, BLACKSTONE ST. Owned by David Williams estate; insurance, $25,000; occupied by C. H. Parker & Co., as hotel; insurance, $10,000; originated on 2d floor; cause, rats and matches.

Wednesday, 20th, 6-07 A.M. Still.

No. 1246 WASHINGTON ST. Cause, supposed fire; needless alarm.

Wednesday, 20th, 6-13 P.M. Still.

No. 62 BOYLSTON ST. Owned by Chas. F. Adams estate; loss, $12; insurance, $50,000; occupied by Boylston Art Studio, as studio; loss, $75; insurance, $2,500; originated on 5th floor; cause, overheated furnace.

Wednesday, 20th, 8-52 P.M. Box 513.

No. 156 LAMARTINE ST. Owned by J. W. Proctor; insurance, $15,000; occupied by several parties, as dwelling; originated in basement; cause, hot ashes in wooden barrel.

Thursday, 21st, 2-40 A.M. Still.

No. 34 STANIFORD ST. Owned by Mrs. Crosby; loss, $195; insurance, $5,000; occupied by Mary Whipple, as dwelling; loss, $275; insurance, $1,500; originated on 2d floor; cause, supposed smoking in bed.

Thursday, 21st, 8-54 A.M. Still.

No. 36 WHITE ST. Owned by Wm. Fletcher; loss, $20; insurance, $1,200; occupied by Wm. A. Rose *et als.*, as tenements; insurance, $1,000; originated on 2d floor; cause, overheated stove-pipe.

Thursday, 21st, 1-12 P.M. Box 618.

No. 140 MARGINAL ST. Owned by Quinn & Fitzpatrick; insurance, $2,000; occupied by Timothy Fanhy, as tenement; originated on 3d floor; cause, children and matches.

Thursday, 21st, 6-02 P.M. Box 35.

No. 5 TREMONT ST. Owned by Chadwick heirs; occupied by same *et als.*, as offices; originated in chimney; cause, burning out.

Thursday, 21st, 7-23 P.M. Box 73.

No. 1 UNION PARK. Owned by A. D. Whitmore; insurance, $10,000; occupied by H. M. Pitt *et als.*, as dwelling; loss, $75; originated on 1st floor; cause, explosion of kerosene lamp.

Thursday, 21st, 8-05 P.M. Still.

No. 1114 WASHINGTON ST. Owned by Curtis estate; loss, $24; insurance, $1,700; occupied by E. J. Mansfield, as plumber; loss, $15; insurance $150; originated on 1st floor; cause unknown.

Thursday, 21st, 9-12 P.M. Box 214.

No. 2081 WASHINGTON ST. Owned by R. Howard; loss, $342; insurance, $12,000; occupied by A. Simonds, as gent's furnishing goods; loss, $900; insurance, $2,500; originated on 1st floor; cause unknown.

Thursday, 21st, 11-22 P.M. Box 641.

NOS. 348 AND 350 MERIDIAN ST. Owned by Masonic Building Association; loss, $983; insurance, $50,000: occupied by Masonic Lodge. as lodge-room; loss, $350; insurance, $7,000; occupied by Smith Bros., as grocers; loss, $304; insurance, $1,500; originated in basement; cause unknown.

Friday, 22d, 5-08, 5-16, 5-19, 5-37 P.M. Box 8.

NOS. 82-98 CANAL, 173-177 FRIEND ST. Owned by Wakefield heirs; C. U. Cotting, agent; loss, $39,647; insurance, $89,000; occupied by Standard Wire Mattress Company, as factory; loss, $1,298; insurance, $1,500; occupied by Boston Chair Company, as salesroom; loss, $12,700; insurance, $12,700; occupied by Dutton & Thompson, as storage; loss, $294; insurance, $850; occupied by N. E. Spring Bed Company, as factory; loss, $329; insurance, $400; occupied by Geo. W. Bent, as mattresses, etc.; loss, $7,887; insurance, $9,000; occupied by J. M. Wood, as lumber; loss, $484; insurance, $625; occupied by W. W. Cain & Co., as desks; loss, $200; occupied by Levi Boles & Co., as sashes, doors, etc.; loss, $8,872; insurance, $15,500; originated on 4th floor; cause unknown.

Remarks. — A man named Sheehan lost his life, being found by fireman burned to death.

Friday, 22d, 6-10 P.M. Still.

NO. 1131 TREMONT ST. Owned by Hook estate; insurance, $3,000; occupied by M. Crahan, as machinist; loss, $25; insurance, $1,000; originated in basement; cause, spontaneous combustion of oily waste.

Friday, 22d, 6-59 P.M. Still.

CITY SQ. Owned by W. E. R.R. Co.; occupied by same, as electric car; loss, $15; originated in car; cause, defective motor.

Friday, 22d, 8-06 P.M. Box 5.

NO. 12 LOWELL ST. Owned by K. Welensky: loss, $70; insurance, $5,000; occupied by same, as dwelling; loss, $75; originated on 1st floor; cause, supposed, from overheated stove.

Saturday, 23d, 12-21 A.M. Box 429.

CHELSEA BRIDGE. Owned by B. & M. R.R. Co.; loss, $400; insurance, $4,000; occupied by same, as freight-office; loss, $30; originated on 2d floor; cause unknown.

Saturday, 23d, 6-27 A.M. Watkins Automatic.

NO. 297 CONGRESS ST. Owned by Dana Estes; insurance, $35,000; occupied by various parties, as machinists, etc.; originated on 4th floor; cause, overheated thermostat.

Saturday, 23d, 6-30 A.M. Still.

NO. 395A W. BROADWAY. Owned by Geo. H. Bond; occupied by John Fields, as dwelling, loss, $50; originated on 1st floor; cause, explosion of a kerosene lamp.

Remarks. — Mrs. Mattie J. Fields severely burned; removed to hospital. John Fields slightly burned on hands and face.

Saturday, 23d, 4-39 P.M. Box 51.

LOT REAR NO. 111 PURCHASE ST. Originated on vacant lot; cause, tar in kettle igniting; needless alarm.

Saturday, 23d, 8–42 P.M. Box 66.

No. 68 Albion st. Owned by Harris Pearlstein; loss, $3; insurance, $3,000; occupied by S. Schochen, as grocery; insurance, $500; occupied by David Barney, as dwelling; originated on 1st floor; cause, man throwing lamp at another man.

Remarks. — A colored man named David Quash badly burnt by being struck by lamp on the head. Died afterwards in hospital from the effects.

Sunday, 24th, 12–32 A.M. Box 214.

Nos. 1808 and 1810 Washington st. 1808 and 10, owned by Mrs. Mary Woodbury; loss, $620; insurance, $1,500; 1814, owned by Thomas Kingsbury; loss, $68; insurance, $2,500; 1808 and 10, occupied by Susan Broderick, as dwelling; loss, $25; originated on 1st floor; cause unknown.

Sunday, 24th, 12–51 A.M. Box 146.

No. 2 Cordage court. Owned by Boston Cordage Company; occupied by Michael Coleman, as dwelling; originated on 1st floor; cause, breaking of kerosene lamp.

Sunday, 24th, 6–45 A.M. Still.

No. 11 Lawrence st. Owned by Mrs. S. A. Downer; loss, $40; insurance, $8,000; occupied by G. I. Robbins, as boarding-house; loss, $15; insurance, $2,500; originated on 1st floor; cause, defective flue.

Sunday, 24th, 12–40 P.M. Still.

No. 197 Sumner st. Owned by Lombard Mfg. Company; insurance, $4,000; occupied by E. B. Express Company, as office; originated on 1st floor; cause, smoky stove-pipe; needless alarm.

Sunday, 24th, 1–45 P.M. Still.

No. 27 East st. Owned by C. G. Way; insurance, $15,000; occupied by L. W. Ferdinand, as hardware; insurance, $8,000; occupied by various parties, as dwelling; originated on 2d floor; cause, igniting of fat in oven.

Sunday, 24th, 2–33 P.M. Box 219.

No. 127 Longwood ave. Owned by Barnard Riley; insurance, $2,000; occupied by same, as dwelling; loss, $15; insurance, $500; originated on 1st floor; cause, breaking of kerosene lamp.

Sunday, 24th, 4–50 P.M. Still.

No. 1095 Washington st. Owned by Polly Stevens heirs; insurance, $10,000; occupied by S. B. Billings, as provisions; insurance, $1,800; originated on outside of building; cause, electric wire.

Sunday, 24th, 5–54 P.M. Box 217.

Rogers court. Owned by H. E. Rogers; unoccupied, as storage; originated on 1st floor; cause, set by boys in an old lounge.

Sunday, 24th, 6–04 P.M. Box 642.

No. 258 Paris st. Owned by Alerrerlane Safirano; loss, $43; insurance, $800; occupied by same, as dwelling; originated on 1st floor; cause, candle setting fire to drapery.

Monday, 25th, 2–49 A.M. Box 917.

REAR NO. 75 FREEPORT ST. Owned by John Donohoe; loss, $75; occupied by John Dugan, as wood-shed; loss, $5; originated in wood-shed; cause unknown.

Monday, 25th, 6–54 A.M. Box 545.

NO. 793 CENTRE ST. Owned by W. A. Nolte; loss, $50; insurance, $3.500; occupied by same, as dwelling; loss, $90; insurance, $1,000; originated on 1st floor; cause, overheated dry-room.

Monday, 25th, 6–40 P.M. Box 5.

NO. 18 LOWELL ST. Owned by L. Appleton; loss, $40; insurance, $5,000; occupied by Jacob White, as crockery; insurance, $500; originated on 1st floor; cause, breaking of oil lamp.

Monday, 25th, 7–46 P.M. Box 461.

NO. 3 SHERMAN ST. Owned by Osgood & Hart; loss, $20; insurance, $4,000; occupied by same, as iron foundry; insurance, $6,000; originated on 1st floor; cause, sparks from furnace.

Monday, 25th, 11–55 P.M. Box 288.

NO. 321A CENTRE ST. Owned by Workingmen's Institute; loss, $20; insurance, $4,500; occupied by U. C. Trinite, as dwelling; loss, $16; originated on 1st floor; cause unknown.

Tuesday, 26th, 12–02 A.M. Still.

NO. 272 CENTRE ST. Owned by Frank W. Wise; loss, $75; insurance, $3,500; occupied by Martha Keyes, as dwelling; originated on 3d floor; cause unknown.

Tuesday, 26th, 9–40 A.M. Still.

NO. 16 ROCHESTER ST. Owned by Aron Actelman; insurance, $3,500; occupied by Abraham Cohen, as dwelling; loss, $3; originated on 2d floor; cause, children and matches.

Tuesday, 26th, 9–50 A.M. Still.

WARREN BRIDGE. Originated on bridge; cause, W. E. trolley wire dropped on a team.

Wednesday, 27th. Still.

NO. 137 HIGHLAND ST. Owned by Ed. Harrington; loss, $90; insurance, $4,000; occupied by C. Clarkson, as dwelling; originated on 1st floor; cause, defective furnace-pipe.

Wednesday, 27th, 12–05 A.M. Still.

NO. 350 TREMONT ST. Owned by Harriet Ryder; loss, $12; insurance, $3,500; occupied by Dr. Follouch, as lodging-house; loss, $10; insurance, $1,500; originated on 3d floor; cause, gas jet igniting lace curtains.

Wednesday, 27th, 3–35 P.M. U.S. Automatic.

NO. 26 SUMMER AND 92 HAWLEY STS. Owned by Mason estate; occupied by G. R. Fiske & Co., as millinery; originated on 1st floor; cause, cutting automatic wire by accident.

Wednesday, 27th, 4–56 P.M. Box 814.

OFF BRIGHTON AVE. Owned by Arthur Timmins; insurance, $5,000; occupied by same, as stable; insurance, $5,000; originated on outside of building; cause, Brookline Electric Light wire.

Wednesday, 27th, 5–26 P.M. Still.

No. 289 MAIN ST. Owned by Geo. H. Denver; loss, $25; insurance, $3,000; occupied by Annie Porchela, as fruit store; loss, $25; originated on 1st floor; cause, explosion of gasoline lamp.

Remarks. — Joseph Porchela burned on hands while throwing lamp into the street.

Wednesday, 27th, 6–07 P.M. Box 19.

No. 5 MERRIMAC ST. Owned by Lyman heirs; loss, $100; insurance, $15,000; occupied by Cohen Bros., as tailor shop; insurance, $1,000; occupied by James Rothwell & Co., as tailor shop; loss, $150; insurance, $25,000; occupied by Levensberg & Rosnosky, as tailor shop; loss, $303; insurance, $3,000; originated on 5th floor; cause, supposed incendiary.

Wednesday, 27th, 6–39 P.M. Still.

No. 69 BOWERS ST. Owned by Geo. R. Flynn; loss, $25; insurance, $2,000; occupied by Wm. Buchanan, as dwelling; loss, $10; originated on 2d floor; cause, explosion of kerosene lamp.

Thursday, 28th, 9–53 A.M. Box 252.

No. 2757 WASHINGTON ST. Owned by R. & C. Rebethge; loss, $47; insurance, $4,500; occupied by same, as dwelling; loss, $56; insurance, $800; originated on 1st floor; cause, explosion of kerosene-oil stove.

Thursday, 28th, 2–59 P.M. Box 816.

B. & A. R.R. YARD, ALLSTON. Owned by B. & A. R.R. Company; occupied by same, as freight car; insurance, $400; originated in loose hay; cause, sparks from locomotive.

Thursday, 28th, 9–45 P.M. Box 136.

EAST FIRST ST., BETWEEN K AND L. Owned by M. J. McSolla; loss, $293; insurance, $1,000; occupied by same, as stable; loss, $50; originated on 2d floor; cause unknown.

Remarks. — Lieut. E. H. Whitney, of Ladder 5, injured shoulder, falling through scuttle. Ladderman Michael Norton, Ladder 5, received cut on knee, falling down.

Friday, 29th, 10–12 A.M. Still.

No. 71 W. LENOX ST. Cause, smoke mistaken for fire; needless alarm.

Friday, 29th, 12–35 A.M. Box 43.

No. 24 BEDFORD ST. Owned by Robert Codman; loss, $396; insurance, $13,000; occupied by Mazur & Silbert, as ladies' garments; loss, $2,425; insurance, $7,000; originated on 4th floor; cause unknown.

Friday, 29th, 12–25 P.M. Still.

COR. DUDLEY ST. AND BLUE HILL AVE. Owned by W. E. R.R. Company; occupied by same, as electric car; loss, $5; originated under car; cause, defective motor.

Friday, 29th, 3–08 P.M. Box 74.

No. 1 JAMES ST. Owned by W. Warren, trustee; loss, $220; insurance, $10,000; occupied by Fred Haskell, as lodging-house; loss, $700; insurance, $3,000; originated on 1st floor; cause unknown.

Friday, 29th, 9–50 P.M. Box 62.

No. 230½ TREMONT ST. Originated on 2d floor; cause, burning phosphorus; needless alarm.

Saturday, 30th, 1–17 A.M., 1–32 A M. Box 45.

No. 86–92 FEDERAL ST. Owned by Jonas Fitch estate; loss, $2,249; insurance, $32,000; occupied by Hill & Hill, as harnesses; loss, $409; insurance, $26,000; occupied by Batchelder & Lincoln, as boots and shoes; insurance, $20,500; occupied by J. A. Hearn & Co., as binders; loss, $9,358; insurance, $25,500; occupied by Carter, Rice, & Co., as stock in J. A. Hearn's, in construction; loss, $229; insurance, $1,000; occupied by Wright & Potter, as stock in J. A. Hearn's, in construction; loss, $600; occupied by DeWolfe, Fiske, & Co., as stock in J. A. Hearn's, in construction; loss, $3,248; insurance, $3,500; occupied by D. C. Heath & Co., as stock, in J. A. Hearn's, in construction; loss, $450; occupied by F. Triffit, as stock in J. A. Hearn's, in construction; loss, $123; occupied by A. Storrs Bement Co., as stock in J. A. Hearn's, in construction; loss, $15; occupied by Boston Printing Company, as stock in J. A. Hearn's, in construction; loss, $10; occupied by Jones Manufacturing Company, of New York, as stock in J. A. Hearn's, in construction; loss, $805; insurance, $1,500; occupied by Bates, Kimball, & Guild, as stock in J. A. Hearn's, in construction; insurance, $1,000; occupied by Rand Avery Supply Company, originated on 5th floor; cause unknown.

Saturday, 30th, 8–30 A.M. Still.

MASON ST. Originated in ash-can in the street; cause, a match thrown in the ash-can with rubbish.

Saturday, 30th, 11 A.M. Still.

No. 13 BLOSSOM ST. Owned by Mrs. Allen, H. L. Marcy, agent; occupied by J. Rothschild, as fruit and candy; loss, $12; insurance, $200; originated on 1st floor; cause, supposed incendiary.

Saturday, 30th, 3–07 P.M. Watkins Automatic.

NOS. 151 AND 153 MILK ST. Originated on 4th floor; cause unknown; needless alarm; person pulling switch of automatic alarm.

Saturday, 30th, 4–23 P.M. Box 412.

No. 91 CAUSEWAY ST. Owned by H. H. Hunnewell estate; loss, $71; insurance, $46,000; occupied by W. A. Holmes, as grocery; loss, $100; insurance, $11,000; originated on 1st floor; cause, lighting gas in window, setting fire to draperies.

Saturday, 30th, 5–14 P.M. Box 417.

No. 1 JACKSON AVE., OFF CHARTER ST. Owned by Dominico Agrippinco; insurance, $3,000; occupied by various parties, as tenements; originated on 3d floor; cause, light mistaken for fire.

Saturday, 30th, 7-52 P.M. Box 51.

No. 102 and 104 High st. Owned by H. G. Weeks; loss, $1,630; insurance, $12,000; occupied by "Messiah Herald," as editor's office; loss, $13; insurance, $400; occupied by H. Leonard, as suspenders; loss, $3,300; insurance, $4,500; occupied by Standard Clothing Company, as tailor shop; loss, $275; insurance, $1,000; occupied by G. D. Hall, as restaurant; loss, $50; insurance, $4,000; occupied by N. Ethier, as barber shop; loss, $40; insurance, $1,200; occupied by Gov't Waterproof Paint Co., as paints; loss, $125; insurance, $2,000; occupied by L. D. Shields, as printer; loss, $32; insurance, $900; originated on 3d floor; cause unknown.

Saturday, 30th, 8-28 P.M. Box 41.

Nos. 32 and 34 Hawley st. Owned by Harriet N. March; loss, $2.200; insurance, $25,000; occupied by Library Bureau, as paper stock; loss, $228; insurance, $1,000; occupied by William A. Orcutt, as stamp and book-lettering; loss, $900; insurance, $1,000; occupied by Columbian Engraving Company, as engraving; loss, $760; insurance, $1,000; occupied by Holland & Daniels, as window shades; loss, $50; insurance, $3,000; occupied by King & Merrill, as pens, pencils, etc.; loss, $908; insurance, $47,350; occupied by Daniel Pratt's Sons, as clocks, etc.; loss, $1,294; insurance, $27,500; occupied by J. A. Currier, as printers; loss, $74; insurance, $1,110; occupied by Lochlan Wallace, as paper ruler; loss, $312; insurance, $3,000; originated on 6th floor; cause unknown.

Remarks. — Alarm came in while apparatus was working at fire, 102 High street, and apparatus responded.

Saturday, 30th, 10-20 P.M. Still.

No. 12 Fay st. Originated in chimney; cause, burning soot; needless alarm.

Sunday, 31st, 5 A.M. Box 257.

No. 7 Maywood st. Owned by M. M. Morris; loss, $25; insurance, $500; occupied by same, as blacksmith; insurance, $1,000; originated on 1st floor; cause, sparks from forge.

Sunday, 31st, 9 A.M. Still.

No. 77 Cambridge st. Owned by J. French & Son; occupied by Mrs. M. A. Leavitt, as dining-room; loss, $25; insurance, $1,000.

Sunday, 31st, 4-15 P.M. Still.

No. 336 Tremont st. Owned by C. F. Darling; insurance, $5,000; occupied by E. L. Brash, as lodgings; loss, $13; insurance, $1,200; originated on 4th floor; cause, careless smoking.

Sunday, 31st, 6-20 P.M. Box 17.

No. 17 Endicott st. Owned by Jacob Schuh; loss, $15; insurance, $4,500; occupied by Hattie Sutton, as dwelling; loss, $10; originated on attic floor; cause, breaking of kerosene lamp.

JANUARY, 1894.

Monday, 1st, 4-08 A.M. Box 157.

No. 66 F st. Owned by Maurice English; loss, $348; insurance, $3,000; occupied by W. J. Thorburn, as bakery; insurance, $1,500; originated on 2d floor; cause, explosion of kerosene lamp.

Monday, 1st, 10–50 A.M. Still.

B, NEAR CONGRESS ST. Owned by N. Y. & N. E. RAILROAD. Occupied by same, as coal-shed; originated in shed; cause, spontaneous combustion.

Monday, 1st, 1–06 P.M. Box 134.

No. 45 BAXTER ST. Originated on 2d floor; cause, smoke from wood drying in oven; needless.

Monday, 1st, 3–49 P.M. Box 267.

NOS. 45 AND 47 WARREN ST. Nos. 45 and 47, owned by Milton heirs; loss, $519; insurance, $2,000; No. 47, occupied by Frank J. Shea, as paints, etc.; loss, $1,358; insurance, $1,300; No. 45, occupied by Frederick Slader, as gas-fixtures; loss, $50; insurance, $500; originated on 1st floor, No. 47; cause, vapor from naphtha igniting from gas stove.

Tuesday, 2d, 1–17, 1–25, 1–29, 1–38 A.M. Box 735.

REAR NO. 596 WASHINGTON ST. Originated in basement; cause unknown.

REAR NO. 596 WASHINGTON ST. Owned by Harriet C. Baldwin; occupied by John Stetson, as theatre; loss on building, $18,000; insurance, $20,000; loss on contents, $5,000; occupied by Hanlon Bros., as theatrical company; loss on contents, $7,500; insurance, $7,500.

REAR NO. 596 WASHINGTON ST. Owned by Silsby heirs; occupied by John Stetson, as theatre entrance; loss on building, $14,160; insurance, $15,000; loss on contents, $16,000.

NOS. 602–612 REAR WASHINGTON ST. Owned by Harriet C. Baldwin; occupied by J. Benari, as boots and shoes; loss on contents, $150; insurance, $21,000; occupied by Geo. E. Wyeth, as hats and furs; loss on contents, $319; insurance, $3,000; occupied by O'Neil & Dowsley, as milliners; loss on contents, $100; insurance, $3,000.

NOS. 594–598 WASHINGTON ST. Owned by Harvard College; unoccupied; loss on building, $960; insurance, $95,000.

NOS. 7 AND 9 HAYWARD PL. Owned by C. R. Whittier; occupied by Miller & Co., as printers; loss on buildings, $85; insurance, $7,000; insurance on contents, $1,500.

NOS. 11 AND 13 HAYWARD PL. Owned by Thomas Monahan; occupied by G. N. Morgan, as club-rooms; loss on building, $303; insurance, $6,000; loss on contents, $500; insurance, $5,000; occupied by W. H. W. Teele, as brass bedsteads; loss on contents, $2,038; insurance, $3,500.

NOS. 15 AND 17 HAYWARD PL. Owned by John Stetson; occupied by John Stetson, as theatre entrance; loss on building, $5,500; insurance, $1,500; loss on contents, $1,000.

NOS. 19 AND 21 HAYWARD PL. Owned by John Stetson; occupied by John Stetson, as storage of scenery; loss on building, $9,000; insurance, $1,500; loss on contents, $3,000; occupied by H. Brock, as dwelling; loss on contents, $400.

NOS. 23 AND 25 HAYWARD PL. Owned by Freeman Wright; occupied by same, as furs, etc.; loss on building, $212; insurance, $8,000; loss on contents, $4,060; insurance, $37,700.

NOS. 27 AND 29 HAYWARD PL. Owned by John Stetson; occupied by —— Dreyfus, as café; loss on building, $25; loss on contents, $231; insurance, $8,000.

NOS. 36 AND 38 ESSEX ST. Owned by A. P. Morse; occupied by G. A. Burleigh, as boots & shoes; loss on building, $1,300; insurance, $3,000; loss on contents, $15; insurance, $1,200.

NOS. 40 AND 42 ESSEX ST. Owned by Harriet C. Baldwin; occupied by J. B. Reagan, as boots and shoes; loss on building, $54; insurance, $16,500; loss on contents, $100; insurance, $4,000.

Nos. 30–34 Essex st. Owned by Harriet C. Baldwin; occupied by J. Stetson, as theatre entrance; loss on building, $266; insurance, $20,000; loss on contents, $1,000.

Nos. 26 and 28 Essex st. Owned by A. T. Brown; occupied by Cable Rubber Company, as salesroom; loss on building, $18; insurance, $10,000; insurance on contents, $8,000.

Nos. 616–622 Washington st. Owned by Hunnewell estate; occupied by R. T. Almy & Co., as clothing; loss on building, $59; insurance, $94,500; insurance on contents, $60,000.

Harrison ave. Owned by John Stetson; occupied by same, as theatre; loss on building, $7,000; insurance, $750; loss on contents, $15,000.

Remarks. — Ladderman J. Meehan, Ladder No. 17, injured in the back. Hoseman J. Madison, Chemical No. 2, injured in the back and groin.

Tuesday, 2d, 5 A.M. Still.

No. 634 Washington st. Owned by C. U. Cotting, trustee; insurance, $75,000; occupied by C. H. McKenney & Co., as lamps, etc.; loss, $48; insurance, $34,000; originated on outside of building, on awning; cause, sparks from steam fire-engine.

Tuesday, 2d, 2–03 P.M. Box 221.

Hampshire st. Owned by Roxbury Carpet Company; insurance, $10,000; occupied by same, as factory; insurance, $12,000; originated on 3d floor; cause, hot journal.

Tuesday, 2d, 2–25 P.M. Still.

Nos. 41 and 43 Leverett st. Owned by Fleet heirs; loss, $173; insurance, $800; occupied by Cohen Bros., as cloak manufacturers; occupied by A. J. Sears, as dwelling; originated on 1st floor; cause, defective chimney.

Tuesday, 2d, 5–52 P.M. Box 516.

No. 3494 Washington st. Owned by James Dolan; loss, $25; insurance, $3,000; occupied by Patrick Kilsoe, as dwelling; loss, $10; originated on 3d floor; cause, lighted pipe left in coat pocket.

Wednesday, 3d, 1–31 A.M. Box 412.

No. 27 Norman st. Owned by A. J. Hollander; loss, $300; insurance, $9,000; occupied by J. L. Brockway, as grocery; loss, $893; insurance, $3,500; originated on 1st floor; cause unknown.

Wednesday, 3d, 1–40 A.M. Box 137.

Nos. 687 and 689 E. Fourth st. Owned by W. S. Blanchard; loss, $216; insurance, $4,500; occupied by J. F. Foster, as bakery and dwelling; loss, $10; originated in cellar; cause, probably dropping lighted match carelessly.

Wednesday, 3d, 9–23 A.M. Box 493.

Austin st. Owned by B. & M. R.R. Company; loss, $50; occupied by same, as coal-shed; loss, $300; originated on roof; cause, boiling over of roofer's tar-kettle.

Wednesday, 3d, 4–55 P.M. Still.

No. 1308 WASHINGTON ST. Owned by J. H. White, trustee; loss, $30; insurance, $7,500; occupied by A. Moran, as lodging-house; loss, $75; insurance, $1,800; originated on 2d floor; cause, explosion of kerosene lamp.

Wednesday, 3d, 5–34 P.M. Box 512.

No. 20 SPRING PARK AVE. Owned by J. C. English; insurance, $1,000; occupied by same, as stable; insurance, $1,000; originated on 2d floor; cause, overturning of lantern.

Wednesday, 3d, 8–22 P.M. Box 276.

No. 8 GUILD ROW. Originated on roof; cause, electric wires burning insulation.

Wednesday, 3d, 8–45 P.M. Still.

No. 83 BEACH ST. Owned by A. W. Russell; insurance, $8,500; occupied by W. J. Clark, as restaurant; insurance, $400; originated on 1st floor; cause, towels dropping on stove.

Thursday, 4th, 3–04 A.M. Box 127.

REAR No. 194 E ST. Originated on 1st floor; cause, igniting of pan of fat on stove; needless.

Thursday, 4th, 5–35 A.M. U. S. Automatic. Box 98–6. 5–45 A.M. Box 46. B. F. D.

No. 12 PEARL ST. Owned by Mass. R. E. & Trust Company; loss, $1,053; insurance, $52,500; occupied by Chas. F. Warner, as baking-powder factory; loss, $500; occupied by Ed. S. Shaw, as office; loss, $50; insurance, $300; originated on 6th floor; cause, gas-stove.

Thursday, 4th, 5–45 A.M. Still.

No. 298 MAIN ST. Owned by Geo. M. Starbard; insurance, $4,000; occupied by Mrs. D. Mahoney, as boarding-house; originated in chimney; cause, smoky chimney.

Thursday, 4th, 4–45 P.M. Still.

No. 116 PRINCE ST. Owned by Antonio Wechrichia; insurance, $7,000; occupied by same, as tenement; loss, $5; originated on 3d floor; cause, children and matches.

Thursday, 4th, 5–50 P.M. Box 85.

No. 82 ALBION ST. Owned by M. Moskoot; insurance, $5,000; occupied by D. Levy, as dwelling; loss, $186; insurance, $1,000; originated on 3d floor; cause unknown.

Thursday, 4th, 7–45 P.M. Still.

COR. WASHINGTON AND CASTLE STS. Owned by West End R.R. Company; occupied by same, as car; originated in car; cause, overheated bearing.

Friday, 5th, 2–15 P.M. Still.

NOS. 66 AND 68 F ST. Owned by Maurice English; loss, $15; insurance, $3,000; occupied by W. J. Thorburn, as bakery; originated on 1st floor; cause, defective baker's oven.

Friday, 5th, 5-17 P.M. Box 412.

No. 44 LOWELL ST. Owned by S. Levingston; loss, $56; insurance, $5,000; occupied by A. Rubenstein, as dwelling; loss, $50; originated on 1st floor; cause unknown.

Friday, 5th, 8-27 P.M. Box 412.

No. 150 MERRIMAC ST. Owned by John Harvey; insurance, $4,000; occupied by Mark Janousky, as dwelling; originated on 3d floor; cause, candle igniting table-cloth.

Friday, 5th, 10-35 P.M. Still.

No. 30 PITTS ST. Cause, burning soot in chimney; needless alarm.

Friday, 5th. Still.

No. 248 FEDERAL ST. Owned by Waldo Bros.; insurance, $1,200; occupied by same, as brick, sand, etc.; loss, $13; insurance, $28,000; originated on 2d floor; cause unknown.

Saturday, 6th, 10-30 A.M. Box 47.

Nos. 28-32 HAMILTON ST. Owned by Moses Kimball; loss, $1,326; insurance, $15,000; occupied by Waite, Williams, & Co., as oil store; loss, $824; insurance, $9,000; occupied by Boston Coupling Company, as Fire Department supplies; loss, $26; insurance, $4,000; occupied by Maryland Meter Company, as meters; insurance, $1,500; originated in basement; cause, sparks from boiler-room.

Saturday, 6th, 12-50 P.M. Still.

No. 38 DECATUR ST. Owned by Fannie E. Gueth; loss, $40; insurance, $1,700; occupied by Mary Doyle, as dwelling; originated on 3d floor; cause, children and matches.

Saturday, 6th, 6-21 P.M. Box 129.

REAR No. 16 GOLD ST. Originated on 2d floor; cause, breaking of kerosene-oil stove; needless alarm

Saturday, 6th, 9-27 P.M. Box 52.

Nos. 74-78 SUMMER ST. Owned by Edward Bangs; loss, $740; insurance, $25,000; occupied by Cushing, Olmstead, & Snow, as wholesale clothing; loss, $2,788; insurance, $213,000; originated on 5th floor; cause unknown.

Saturday, 6th. Box 85.

No. 63 INDIA PL. Owned by C. H. Cahill; loss, $451; insurance, $7,000; occupied by Mrs. F. E. Hodgdon, as Lodging Company; loss, $100; originated on 3d floor; cause, explosion of kerosene lamp.

Sunday, 7th, 3-12 A.M. Box 74.

No. 24 E CANTON ST. Owned by R. E. Townsend, agent; loss, $175; insurance, $2,600; occupied by A. T. David, as lodging-house; loss, $90; originated on 3d floor; cause, explosion of kerosene lamp.
Remarks. — A man named Edward Greydon was overcome by smoke.

Sunday, 7th, 4-30 A.M. Still.

No. 471 MAIN ST. Owned by A. E. Driscoll; loss, $40; insurance, $1,500; occupied by J. Schwartz, as clothing store; insurance, $500; originated in basement; cause, explosion of lamp.

Sunday, 7th, 6–40 A.M. Box 56.

NOS. 188–192 KNEELAND ST. Owned by M. Doherty heirs; loss, $60; insurance, $60,000; occupied by H. Doherty, as liquors; insurance, $32,000; originated on 1st floor; cause, spontaneous combustion oily rags.

Sunday, 7th, 10–18 A.M. Still.

REAR NO. 30 DORCHESTER AVE. Owned by H. G. Jordan; occupied by same, as coal-shed; originated in shed; cause, spontaneous combustion.

Sunday, 7th, 5–01½ P.M. Box 415.

NO. 88 POPLAR ST. Owned by D. Kerner; occupied by Mary B. Lovitch, as groceries; loss, $13; insurance, $250; originated on 1st floor; cause, lighted match carelessly thrown among paper.

Sunday, 7th, 5–04 P.M. Still.

NO. 91 GREEN ST. Owned by J. B. Ames; insurance, $35,000; occupied by W. D. Barker, as dwelling; loss, $5; originated on 3d floor; cause, gas jet igniting curtain.

Monday, 8th, 12–35 P.M. Still.

NO. 227 DUDLEY ST. Owned by J. L. Karrick; loss, $30; insurance, $15,000; occupied by Bennett Norwitch, as dwelling; originated on 2d floor; cause, careless use of matches.

Monday, 8th, 1–14 P.M. Still.

NO. 1 HUNNEMAN ST. Owned by J. C. Smith; occupied by same, as storeroom; originated in chimney; cause, soot burning.

Monday, 8th, 1–28 P.M. Still.

NO. 5 HOLBROOK AVE. Owned by Nathan Holbrook; insurance, $8,000; occupied by Henry D. Murphy, as dwelling; loss, $63; insurance, $900; originated on 2d floor; cause, children and matches.

Monday, 8th, 7–02 P.M. Box 74.

NO. 659 HARRISON AVE. Owned by James Finnegan; insurance, $3,000; occupied by John Dunn, as dwelling; loss, $25; originated on 2d floor; cause, upsetting of kerosene lamp.

Tuesday, 9th, 4–45 A.M. Still.

NO. 5 HAYNES ST. Owned by B. & M. R.R.; insurance, $2,000; occupied by Peter Judge and others, as stables; insurance, $1,500; originated in hay loft; cause, incendiary.

Tuesday, 9th, 9–08 A.M. Box 965.

CODMAN ST. Owned by City of Boston; loss, $100; occupied by same, as engine-house and for stone-crusher; originated on roof; cause, overheated smokestack.

Tuesday, 9th, 11–58 A.M. Box 68.

NO. 605 HARRISON AVE. Owned by Wm. O'Connell; insurance, $35,000; occupied by Lizzie Quinn, as dwelling; loss, $5; originated in basement; cause unknown.

Tuesday, 9th, 6–55, 7 P.M. Box 49.

No. 3 WINTER ST. Owned by Hodges heirs; insurance, $70,000; occupied by Scott Leighton, as artist studio; loss, $8,000; insurance, $7,000; occupied by J. L. Weinz, as jeweller; loss, $20; insurance, $800; originated on 5th floor; cause unknown.

Tuesday, 9th, 8–39 P.M. Box 827.

No. 3 No. BEACON ST. Owned by Dr. Hunt; loss, $100; insurance, $3,000; occupied by J. A. Ashton, as groceries; loss, $12; insurance, $1,000; originated on 1st floor; cause, defective flue.

Wednesday, 10th, 4–10 P.M. Still.

No. 36 VILLAGE ST. Owned by Mrs. J. A. Walsh; insurance, $4,000; occupied by J. H. John, as lodging-house; insurance, $800; originated in chimney; cause, soot burning in chimney.

Wednesday, 10th, 4–24 P.M. Box 67.

No. 823 WASHINGTON ST. Owned by David Hunt; loss, $35; insurance, $2,000; occupied by Geo. W. Vinning, as photographer; loss, $25; occupied by Miss L. J. McKinnon, as employment office; originated on 3d floor; cause, curtain in contact with electric carbon.

Wednesday, 10th, 4–28 P.M. Box 86.

No. 478 SHAWMUT AVE. Owned by J. L. Simonds; loss, $175; insurance, $4,000; occupied by F. Guyon, as lodging-house; loss, $150; insurance, $1,500; originated in basement; cause, explosion of kerosene-oil stove.

Wednesday, 10th, 4–40 P.M. Still.

No. 1786 WASHINGTON ST. Originated in chimney; cause, burning out; needless alarm.

Wednesday, 10th, 5–25 P.M. Box 412.

No. 44 LOWELL ST. Owned by S. Livingston; insurance, $5,000; occupied by T. Sheridan, as dwelling; insurance, $500; originated on 2d floor; cause, breaking of lamp.

Wednesday, 10th, 6–30 P.M. Still.

No. 9 BRAINTREE ST. Owned by Samuel Hano; insurance, $3,000; occupied by M. Fitzpatrick, as bowling-alley; originated on 1st floor; cause, spontaneous combustion oily rags.

Wednesday, 10th, 8–05 P.M. Still.

No. 31 GREEN ST. Owned by A. Brown heirs; occupied by J. Cuneo, as barber shop; originated on 1st floor; cause unknown.

Thursday, 11th, 1–58 A.M. Still.

AMORY ST. Originated in an old tree; cause unknown.

Thursday, 11th, 9–01 A.M. Box 463.

FREEDOM COURT. Owned by J. B. Lord; occupied by J. Emmons, as wagon-shed; loss, $100; originated in a meat wagon; cause unknown.

Thursday, 11th, 10–44 A.M. Still.

No. 84 CANAL ST. Cause, bales of wet husk steaming; needless alarm.

Thursday, 11th, M. Box 18.

No. 23–29 BRATTLE ST. Owned by C. Crowningshield; loss, $255; insurance, $12,500; occupied by Marston & Co., as dining-room; loss, $390; insurance, $25,000; originated on 1st floor; cause, kettle of fat taking fire.

Thursday, 11th, 4–53 P.M. Box 65.

LEIGH-ST. FREIGHT-HOUSE, No. 6. Owned by B. & A.R.R. Company; occupied by same, as freight-house; originated on 1st floor; cause, igniting of alcohol while thawing out meter.

Thursday, 11th, 4–59 P.M. Box 54.

False alarm.

Thursday, 11th, 11–10 P.M. Still.

BROADWAY, NEAR DORCHESTER ST. Owned by W. E. R.R. Company; occupied by same, as electric car; originated on car; cause, burning out of fuse.

Friday, 12th, 9–50 A.M. Box 817.

HASKELL ROAD. Owned by Bert Fuller; loss, $170; insurance, $6,500; unfinished dwelling; originated in basement; cause, overheated furnace.

Friday, 12th, 10–40 A.M. Still.

No. 55 CAMBRIDGE ST. Owned by J. B. Osborn; loss, none; insurance, $7,000; occupied by Mrs. W. Dimond, as dwelling; originated on second floor; cause, explosion of can of naphtha.

Friday, 12th, 11–26 A.M. Box 65.

No. 177 ALBANY ST. Owned by E. Lissner; loss, $5; insurance, $4,500; occupied by James Rose and others, as dwelling; originated in wood-shed; cause, hot ashes in a wooden barrel

Friday, 12th, 7–30 P M. Still.

No. 1202 WASHINGTON ST. Owned by J. L. Stevenson; loss, $50; insurance, $20,000; occupied by Caldwell & Co., as hotel; loss, none; insurance, $6,000; originated on first floor; cause, defective chimney.

Friday, 12th, 9–55 P.M. Still.

No. 6 PERCIVAL PL. Owned by Frederick L. Crane; loss, none; insurance, $500; occupied by M. Flynn, as dwelling; originated in chimney; cause, burning of soot.

Friday, 12th, 11–55 P.M. Still.

MAVERICK HOUSE, MAVERICK SQ. Owned by Sturtevant heirs; occupied by A. B. Foster, as hotel; originated in chimney; cause, burning soot.

Friday, 12th. Still.

NOS. 775 AND 777 WASHINGTON ST. Owned by J. M. Clark; loss, none; insurance, $6,000; occupied by H. P. Robbins and others, as drugs, etc.; loss, none; insurance, $7,150; originated in chimney; cause, burning soot.

Saturday, 13th, 8–50 A M. Still.

No. 4 GLOUCESTER ST. Owned by W. P. Walley; loss, none; insurance, $10,000; occupied by same, as dwelling; loss, none; insurance, $8,000; originated in chimney; cause, burning out.

Saturday, 13th, 10–19 A.M. Box 336.

NOS. 22 AND 24 MERRILL ST. Owned by J. M. Way estate; loss, $1,442; insurance, $4,000; occupied by M. A. Hawkins, as dwelling; loss, $160; insurance, $1,000; occupied by W. T. Day, as dwelling; loss, $200; insurance, none; originated on second floor; cause, carelessness in thawing water-pipe.

Saturday, 13th, 10–23 A.M. Still.

NORFOLK ST. Owned by Methodist Church Association; loss, $73; insurance, $2,000; occupied by Rev. M. Perrotts, as dwelling; originated on first floor; cause, bursting of water-back.

Saturday, 13th, 12-03, 12–11 P.M. Box 276.

GUILD ROW AND DUDLEY ST. Owned by First Universalist Church; loss, $15,000; insurance, $16,000; occupied by same, as church; loss, $6,699; insurance, $7,500; originated in basement; cause, overheated furnace.

Saturday, 13th, 1–45 P.M. Still.

NO. 375 DORCHESTER ST. Owned by Adam Hagerty; occupied by J. R. Gilbert, as dwelling; originated in cellar; cause, thawing water-pipes.

Saturday, 13th, 5–14 P.M. Box 428.

NO. 21 MEDFORD ST. Owned by P. Maguire; loss, $226; insurance, $2,000; occupied by P. Callahan, as dwelling; loss, $25; occupied by Thomas Kenney, as dwelling; loss, $50; originated in cellar; cause, thawing water-pipes.

Saturday, 13th, 6–07 P.M. Box 465.

NO. 3 CLINTON PL. Originated in chimney; cause, burning out; needless.

Saturday, 13th, 11–41 P.M. Still.

NO. 447 WASHINGTON ST. Owned by J. C. Coppenhagen heirs; insurance, $15,000; occupied by Filene, as ladies' garments; insurance, $15,000; originated in chimney; cause, building fire under boiler; needless.

Saturday, 13th, 11–56 P.M. Box 366.

MILTON, MASS. Cause, fire in Milton, Mass.; service not needed; needless.

Sunday, 14th, 1–25 A.M. Still.

NO. 129 MERIDIAN ST. Owned by Samuel Heffses; insurance, $6,600; occupied by L. J. Lyons, as clothing; insurance, $9,000; originated on first floor; cause, lighted match or cigar thrown into wooden box.

Sunday, 14th, 4–16 A.M. Box 991.

NO. 3 BALLOU PL. Mrs. S. Azaride; loss, $250; insurance, $3,750; occupied by same, as dwelling; insurance, $700; originated in cellar; cause, supposed incendiary.

Sunday, 14th, 11 A.M. Still.

NO. 8 COMMONWEALTH AVE. Originated in chimney; cause, burning out; needless.

Sunday, 14th, 12-15 P.M. Still.

No. 144 DORCHESTER AVE. Owned by William Peard; occupied by T. E. Johnson, as dwelling; originated in chimney; cause, smoky; needless.

Sunday, 14th, 1-30 P.M. Still.

No. 91 HUDSON ST. Owned by C. M. Rogers; loss, $10; insurance, $4,000; occupied by Thomas J. Cavanaugh, as dwelling; originated on first floor; cause, thawing out water-pipe.

Sunday, 14th, 3-01 P.M. Box 822.

No. HARVARD ST. Owned by Bishop & Cummings; loss, $25; occupied by same, as contractors; originated on roof; cause, sparks from chimney.

Sunday, 14th, 6-10 P.M. Still.

No. 1521 WASHINGTON ST. Owned by W. T. Hart; loss, $25; insurance, $70,000; occupied by Geo. H. Gardiner *et als.*, as hotel; insurance, $9,000; originated on third floor; cause, hot ashes in wooden box.

Sunday, 14th, 6-25 P.M. Box 21.

No. 114 SUDBURY ST. Cause, smoky chimney; needless.

Monday, 15th, 3-07 P.M. Box 425.

No. 28 COTTAGE ST. Owned by Thomas Welch; loss, $30; insurance, $1,500; occupied by P. O'Connor and others, as dwelling; loss, $10; originated on third floor; cause, pipe left in overcoat pocket.

Monday, 15th, 7-51 P.M. Box 28.

No. 39 MERCHANTS ROW. Owned by B. G. Boardman estate; loss, $100; insurance, $10,000; occupied by John Munroe, as rattan-worker; loss, $213; insurance, $725; originated on fifth floor; cause unknown.

Monday, 15th, 8-35 P.M. Box 726.

No. 394 FEDERAL ST. False alarm.

Monday, 15th, 9-41 P.M. Box 219.

OFF HUNTINGTON AVE., NEAR WARD ST. Owned by A. Folsom estate; loss, $15; unoccupied, as storage building; originated on first floor; cause, incendiary.

Monday, 15th, 10-19 P.M. Still.

NOS. 21 AND 23 W. FIRST ST. Owned by Patrick Lally; insurance, $20,000; occupied by same, as blacksmith; originated on first floor; cause, bursting of steam-pipe; needless.

Tuesday, 16th, 9 A.M. Still.

No. 20 FLORENCE ST. Owned by J. M. Wade; insurance, $4,000; occupied by J. Welch, as coal and wood; originated in yard; cause, destroying an old mattress by fire.

Tuesday, 16th, 12-45 P.M. Still.

No. 10 S. EDEN ST. Owned by A. H. Allen estate; insurance, $700; occupied by Richard White, as dwelling; originated on 2d floor; cause, smoking stove; needless alarm.

Tuesday, 16th, 5-59 P.M. Still.

No. 3 BEACH-ST. PL. Originated in chimney; cause, sparks coming from chimney; needless.

Wednesday, 17th, 5-41 A.M. Box 23.

No. 8 AND 9 BOWDOIN SQ. Owned by C. Shimmans heirs; loss, $889; insurance, $15,000; occupied by G. K. Saville, as hotel; loss, $440; insurance, $10,000; originated on 2d floor; cause, careless use of matches.

Wednesday, 17th, M. Still.

No. 10 ASYLUM ST. Owned by Sarah Irwin; loss, $45; insurance, $5,000; occupied by same, as lodging-house; loss, $30; originated on 1st floor; cause, children and matches.

Wednesday, 17th, 6-58 P.M. Still.

IRVINGTON ST. Owned by J. R. Coolidge; insurance, $70,000; occupied by Church Organ Company, as factory; loss, $20; insurance, $151,000; originated in basement; cause, back draft from furnace.

Thursday, 18th, 6-05 P.M. Still.

OPPOSITE No. 7 MONMOUTH ST. Originated in street; cause, set by boys; bonfire.

Thursday, 18th, 8-25 P.M. Still.

Nos. 44-48 PORTLAND ST. Owned by A. D. Puffer & Son; occupied by same, as soda fountains; originated on 3d floor; cause, hot ashes in wood-box.

Friday, 19th, 6-15 A.M. Box 645.

No. 412 BORDER ST. Originated on 1st floor; cause, burning barrel on floor to give light; needless alarm.

Friday, 19th, 4-10 P.M. Still.

No. 296 BEACON ST. Owned by O. W. Holmes; insurance, $15,000; occupied by same, as dwelling; insurance, $8,500; originated in chimney; cause, burning out.

Friday, 19th, 6-25 P.M. Box 68.

No. 119 MALDEN ST. Owned by J. J. McNutt; loss, $261; insurance, $2,800; occupied by same, as stable; originated on 2d floor; cause unknown

Remarks. — No division of losses.

Saturday, 20th, 10-46 A.M. Box 156.

No. 771 E. FOURTH ST. Owned by A. C. Page; loss, $510; insurance, $3,000; occupied by Thomas Burns, as dwelling; loss, $50; insurance, $500; originated on 3d floor; cause, explosion of kerosene-oil stove.

Sunday, 21st, 12-44 A.M. Box 36.

No. 24½ EXCHANGE ST. Owned by Mrs. Sarah Garrett; loss, $285; insurance, $5,000; occupied by W. W. Ginns, as boots and shoes; insurance, $1,600; originated on 3d floor; cause, unknown; supposed incendiary.

Sunday, 21st, 8–16 A.M. Box 93.

NO. 25 DARTMOUTH ST. Owned by R. Morrison; insurance, $9,000; occupied by A. Martin, as dwelling; loss, $50; insurance, $1,200; originated on 3d floor; cause, upsetting of kerosene-oil stove.

Sunday, 21st, 9–10 A.M. Still.

PARKWAY ON POND ST. Owned by City of Boston; originated in rubbish; cause, carelessness.

Sunday, 21st, 2–26 P.M. Box 42.

HAMILTON PL. Owned by Music Hall Association; loss, $1,375; insurance, $100,000; occupied by Music Hall Corporation, as hall; originated on 3d floor; cause unknown.

Sunday, 21st, 4–36 P.M. Box 93.

NO. 155 W. CANTON ST. Owned by H. G. Emery; loss, $24; insurance, $6,000; occupied by S. M. Walsh, as dwelling; loss, $10; insurance, $1,200; originated on 3d floor; cause, curtain igniting from gas jet.

Sunday, 21st, 6–25 P.M. Still.

NO. 1074 WASHINGTON ST. Cause, tramp rang door bell and told occupants the house was on fire; false.

Sunday, 21st, 9–09 P.M. Box 46.

NOS. 17 AND 19 PEARL ST. Owned by Massachusetts Real Estate Company; loss, $7,209; insurance, $55,000; occupied by W. Tracey Eustis, as office; loss, $39; insurance, $250; occupied by W. H. Whitmore, as office; loss, $631; insurance, $3,769; occupied by James W. Eustis, as hardware specialties; loss, $253; insurance, $2,000; occupied by Gamewell Auxiliary Fire Alarm, as office; loss, $120; insurance, $500; originated on 1st floor; cause, rats and matches.

Sunday, 21st, 9–55 P.M. Still.

NO. 18 BEDFORD ST. Cause, smoking chimney; needless alarm.

Monday, 22d, 10–45 A.M. Box 965.

CODMAN ST. Owned by City of Boston; loss, $10; occupied by same, as engine-room; originated on roof; cause, overheated smoke-stack.

Monday, 22d, 5–54 P.M. Still

COR. VERNON AND SIMMONS STS. Originated on open lot; cause, set by boys; bonfire.

Monday, 22d, 8–20 P.M. Still.

NO. 14 SCHOOL ST. Originated in cellar; cause, smoke from furnace; needless alarm.

Tuesday, 23d, 1–40 A.M. Still.

NO. 130 ELIOT ST. Owned by Hollingsworth estate; insurance, $20,000; occupied by L. Kennedy, as liquors; insurance, $5,000; originated on 1st floor; cause, careless use of matches.

Tuesday, 23d, 6–18 P.M. Box 525.

Pond, near Orchard st. False alarm.

Wednesday, 24th, 8 A.M. Still.

Burnham's wharf, Swett st. Owned by Burnham & Co.; occupied by same, as coal-wharf; insurance, $28,000; originated on coal-pile; cause, spontaneous combustion.

Wednesday, 24th, 11–15 A.M. Still.

No. 5 Ferdinand st. Originated in chimney; cause, soot burning; needless alarm.

Wednesday, 24th, 6–18 P.M. Box 146.

No. 672 E. Sixth st. Owned by Niles Bros ; insurance, $8,000; occupied by T. H. Sullivan, as dwelling; loss, $300; originated on 1st floor; cause, upsetting a piano lamp.

Wednesday, 24th, 8–18 P.M. Box 484.

No. 5 Union court. Owned by Mrs. T. Riley; loss, $8; insurance, $2,500; occupied by John Harris, as dwelling; loss, $10; originated on 3d floor; cause, child knocking over lamp.

Remarks. — A child of John Harris slightly burned on the head.

Wednesday, 24th, 10–45 P.M.

Brockton, Mass.

Remarks. — Engine No. 15 sent to Brockton, Mass., by order of Chief Webber, in answer to call for assistance. Company gone 8 hours, working about 2½ hours at fire.

Thursday, 25th, 12–40 A.M. Still.

No. 206 Dartmouth st. Cause, smoky furnace; needless alarm.

Thursday, 25th, 9–30 A.M. Still.

Rear No. 83 Silver st. Owned by Frank T. McKenna; occupied by same, as storehouse for old iron; originated on 1st floor; cause, spontaneous combustion oily iron chips.

Thursday, 25th, 10–58 A.M. Still.

No. 15 Knox st. Owned by S. W. Winslow; loss, $35; insurance, $3,500; occupied by Daniel Sheehan and others, as dwelling; originated on 2d floor; cause, boiling over of pot of fat.

Thursday, 25th, 11–34 A.M. Box 73.

No. 314 Shawmut ave. Owned by J. P. Hawes; loss, $50; insurance, $10,000; occupied by Hannah Basson, as dwelling; loss, $55; insurance, $1,500; originated in cellar; cause unknown.

Thursday, 25th, 5–33 P.M. Still.

Cor. Reed and Thorndike sts. Owned by T. L. Connelly; unfinished dwelling; cause, steam mistaken for fire; needless alarm.

Thursday, 25th, 8-45 P.M. Still.

No. 2 NOYES PL. Owned by Mrs. Ellen Woods; occupied by same, as dwelling; originated on cellar stairs; cause, falling and breaking of kerosene lamp.

Remarks. — Mrs. Ellen Woods fell coming up cellar stairs with lighted lamp and was slightly burned.

Thursday, 25th, 9-10 P.M. Box 414.

No. 122½ LEVERETT ST. Owned by Berkman Bros.; loss, $75; insurance, $7,500; occupied by same, as clothing; loss, $2,900; insurance, $9,000; originated on 1st floor; cause unknown.

Thursday, 25th, 11-54 P.M. Still.

No. 54 S. MARGIN ST. Owned by Mary A. Daniels; insurance, $4,000; occupied by David Siske, as dwelling; originated on 4th floor; cause, smoking in bed.

Friday, 26th, 2-47 A.M. Box 61.

No. 8 OSBORNE PL. Owned by Horace Kelley; loss, $4; insurance, $1,200; occupied by Michael J. Maloney, as dwelling; loss, $25; originated on 2d floor; cause unknown.

Friday, 26th, 12-57 P.M. Box 85.

No. 84 ALBION ST. Owned by M. G. Gordon; insurance, $6,000; occupied by Philip Markel, as tenement; originated on 1st floor; cause, lighting a fire with kerosene.

Remarks. — Philip Markel burned on both hands; Mrs. Philip Markel burned on left wrist; Miss Mary Markel burned on both arms; Bernard Markel burned on both hands.

Friday, 26th, 1-07 P.M. Still.

No. 4 CRESCENT PL. Owned by Hyman Cohen; loss, $15; insurance, $6,500; occupied by Louis Levenson, as dwelling; originated on 2d floor; cause, careless use of matches.

Friday, 26th, 2-30 P.M. Box 213.

Cause, broken hydrant; needless alarm.

Saturday, 27th, 3-18 A.M. Box 431.

No. 22 N. MEAD ST. Owned by A. H. Allen estate; loss, $76; insurance, $2,000; occupied by C. Donovan, as dwelling; loss, $25; originated on 1st floor; cause, rats and matches.

Saturday, 27th, 10-20 A.M. Still.

SIMMONS ST. Cause, accidental while repairing wire; false alarm.

Saturday, 27th, 2-05 P.M. Still.

No. 150 WARREN AVE. Originated in basement; cause, gas explosion; needless alarm.

Saturday, 27th, 7-07 P.M. Box 414.

No. 12 ASHLAND ST. Owned by Betsey Levinstin; loss, $298; insurance, $7,000; occupied by Louis Levinstin, as dwelling; loss, $300; insurance, $1,000; originated on 2d floor front; cause unknown.

Sunday, 28th, 8–20 A.M. Still.

No. 81 DOVER ST. Owned by J. M. Rothenburg; no claim; occupied by Welsh & Henderson, as liquors; no claim; originated in basement; cause, hot ashes placed in wooden barrel.

Sunday, 28th, 2–39 P.M. Box 451.

No. 2 CRIMMINS PL. Originated on 1st floor; cause, fat boiling over on stove; needless alarm.

Sunday, 28th, 7–05 P.M. Still.

No. 869 E. FOURTH ST. Owned by Martin Peterson; loss, $36; insurance, $5,500; occupied by B. F. Wheeler, as dwelling; loss, $40; originated on 3d floor; cause unknown.

Monday, 29th, 12–42 P.M. Box 96.

No. 20 CAZENOVE ST. Owned by L. H. Browne; loss, $1,698; insurance, $15,000; occupied by H. E. Silver *et al.*, as dwelling; loss, $161; insurance, $1,500; originated in basement; cause, incendiary.

Monday, 29th, 2–50 P.M. Still.

FEDERAL ST. Owned by W. E. R.R. Company; occupied by same, as electric car; originated under car; cause, burning out of fuse.

Monday, 29th, 8 P.M. Still.

MILL ST. Cause, hot ashes thrown against building; needless alarm.

Tuesday, 30th, 6–50 A.M. Still.

SECOND ST., NEAR M ST. Owned by C. H. Adams; unfinished dwelling; originated in cellar; cause, slacking lime near loose shavings.

Tuesday, 30th, 5–05 P.M. Still.

No. 607 TREMONT ST. Cause, supposed fire; needless alarm.

Wednesday, 31st, 4 A.M. Automatic.

HOOSAC TUNNEL DOCK. Cause unknown; false alarm.

Wednesday, 31st, 4–17 A.M. Box 412.

No. 38 WALL ST. Owned by M. Swartz; loss, $250; insurance, $3,500; occupied by M. Abramovich, as dwelling; originated on 2d floor; cause unknown.

Wednesday, 31st, 4–31 P.M. Box 212.

No. 17 CHADWICK ST. Owned by John Quirk; occupied by M. J. Burke, as tenement; originated in chimney; cause, soot burning.

Wednesday, 31st, 6–36, 6–44 P.M. Box 634.

No. 212 BORDER ST. Owned by John S. Weeks heirs; loss, $2,300; insurance, $5,000; occupied by James Gurney & Co., as foundry; loss, $666; insurance, $1,717; originated on 1st floor; cause unknown.

Wednesday, 31st, 6-51 P.M. Box 521.

No. 118 GREEN ST. Owned by Thomas Decatur; loss, $40; insurance, $13,000; occupied by Miss J. J. Horen, as dwelling; loss, $70; insurance, $700; originated on 2d floor; cause, match igniting curtain by carelessness.

Wednesday, 31st, 7-05 P.M. Box 645.

Cause, some malicious person pulled box; false alarm.

Wednesday, 31st, 7-17 P.M. Still.

No. 238 CABOT ST. Owned by Bishop estate; insurance, $3,000; occupied by John Kenney, as dwelling; originated on 2d floor; cause, breaking kerosene lamp.

Wednesday, 31st, 8-01 P.M. Box 86.

WASHINGTON, NEAR CONCORD ST. Owned by W. E. R.R. Company; occupied by same, as electric car; originated on car; cause, defective motor.

Wednesday, 31st, 10-30 P.M. Box 215.

No. 957 TREMONT ST. Owned by E. Farwell; insurance, $5,000; occupied by Bridget Lang, as dwelling; originated in chimney; cause, soot in chimney.

REPORT OF THE INSPECTOR OF WIRES.

To the Board of Fire Commissioners:

Gentlemen: I have the honor to present to you my annual report for the year ending January 31, 1894. In addition to the work done by this bureau, I have endeavored to obtain for your information an accurate statement from the various companies of this city, as to the extent of their service, and I am pleased to say that with the exception of the Steam and Power Company, all have kindly complied with my request. I desire to again call your attention to the laws governing this department. While it obliges me to examine all wiring for light and power service, and report defects to interested parties, it does not provide for their enforcement. In view of this fact I would suggest that your Board take such action as may be necessary to enable this bureau to more fully carry out the requirements for which it was created. We have received during the year 2,276 notices of installations, which probably is not more than one-half of the amount of work done during that time. As I cannot compel any one to notify us of their intentions, I would recommend that such action be taken as will oblige an inspection and a certificate of approval issued before current is allowed to be used or enter buildings. During the year thirty-six fires have been reported at this office as having been caused by electricity. An immediate examination has been made in each case, and no doubt exists that twenty-three of these reports are correct. Twelve of these places had been examined previous to the fires being reported, and defects noted in eight of them, and the proper parties informed of the same.

Isolated plants have undergone some changes, but most of them still remain in an unsatisfactory condition.

As I have previously reported, overhead wires are run in a very careless manner, and consequently must be a great hindrance to the Fire Department, in many places crossing buildings less than two feet from the roof; and there should be definite regulations controlling this class of work, and a penalty attached for non-compliance to proper rules and regulations.

As a rule new wiring is being done in a satisfactory manner, but the old work is found to be in a very poor condition. This class of work should receive more attention than I am able

to give it with the present force of examiners, their time being fully occupied in looking after new installations. In view of the above fact, I would recommend that your honorable Board consider the advisability of increasing the number of examiners.

Number of buildings examined	2,187
Defects reported	364
Defects remedied	123
Isolated plants examined	135
Arc lights examined	1,424
Incandescent lights examined	67,219
Motors examined	527
Notice of installation received	2,276
Number of buildings from which dead and abandoned wires have been removed . . .	891
Amount of wire removed . . . miles	67
Reports of defective wires received . . .	841
Reports of same sent to owners	504
Number of poles in use by the various companies, independent of the West End Street Railway .	12,048
Plans of streets, showing locations of poles which have been granted by the Board of Aldermen during the year now complete, and filed in this office	781

The Edison Electric Illuminating Company had installed, January 1, 86,631 incandescent lamps, 710 arc lamps, and 1,251 motors, with a total horse-power of 3,999. They have 47 miles of underground conductors. During the past year their overhead system has been entirely removed and replaced with underground.

The Brookline Gas Light Company have overhead wires, all on poles, 52 miles, but none underground. They have in use 2,663 incandescent lamps and 126 arc lamps.

The Church Green Light and Power Company are furnishing current for 2,200 incandescent lamps and 21 electric motors.

The Suburban Light and Power Company have about 90 miles of overhead wire connected with their two stations, and are furnishing current for 275 arc, 7,000 incandescent lamps, and 60 motors. Their wires are mostly on house-tops.

The Boston Electric Light Company are operating five stations in this city, the total horse-power capacity of which is 6,000, with room for extension, as may be needed. They have about 625 miles of overhead wires for arc, incandescent, and power currents. They are engaged at the present

time in laying about 3½ miles of underground wire conduits for the high tension arc current. They have a capacity for 4,000 10 ampère, 45 volt, 2,000 C. P. lamps, of which the city is using about 1,350. They are furnishing some 25,000 16 C. P. alternating incandescent lamps partly to the city and partly to commercial customers, and furnish about 1,000 electrical horse-power to various customers, about 800 of which is from the 500-volt current, the balance from the alternating current.

The Charlestown Gas and Electric Light Company are running one 65-light, one 50-light, nine 30-light dynamos, and one 650-light alternating dynamo, with about 60 miles of overhead wire.

They furnish the city with 140 arc lights, and 113 commercial arc lights and 435 incandescent lights.

West End Street Railway Company have in Boston 75.2 miles of trolley, 105.3 of feeders, and 46.7 overhead returns; in Charlestown, 5.1 miles of trolley, 11.5 of feeders, and 5.5 overhead returns; in Allston and Brighton, 6.4 miles of trolley, 11.7 of feeders, and 3.5 of overhead returns. The Central Power Station capacity in ampères 18,500 — 12,400 horse-power. Allston Power Station capacity in ampères 1,800 — 1,200 horse-power. Charlestown is fed in part from the Cambridge station, which will rate 3,750 electrical horse-power. These are conservative figures and are frequently worked over on station loads.

The New England Telephone and Telegraph Company, the total length of conduit is 24.46 miles; the total length of duct, 201.35 miles; number of manholes, 508.

The underground cables of this company vary from 20 to 200 wires, and the total length of cables is 73.58 miles, while the number of miles of wire underground is 8,361.1.

Western Union Telegraph Company have overhead about 119 miles of wire, and underground about 700 miles, and estimate that 90% of the wires connecting the depots is underground.

Mutual District Messenger Company have about 240 miles of wire on house-tops, but none underground. They have 4,100 call-box connections, and private connections with banks, hotels, City Hall, and State House.

Postal Telegraph Company have 244 miles of overhead wire, and about 40 miles in aerial cables, and are preparing at the present time to petition for the right to put 90% of their wires underground.

Boston District Messenger Company have some 150 miles of overhead wire, and 2,500 call-boxes in this city.

Boston Electric Protective Association have about 15

miles of wire overhead, and enter something over a hundred buildings.

Holmes Protective Company have no wires underground, but are operating about 70 miles of open wire and 35 miles in cables, and enter about 150 buildings.

Boston Auxiliary Fire-Alarm Company have their system installed in 137 buildings in this city and connected with 124 special boxes; 14 of this number of fire-alarm boxes are connected with the central office by two special circuits of about eight miles of overhead wire.

Automatic Fire-Alarm and Extinguisher Company have about 53 miles of overhead wire connecting their office with 232 buildings and 18 engine-houses. One hundred and fifteen fires have been reported by their system, and 49 of them extinguished without the sounding of the city alarm.

United States Electric Fire-Signal Company are operating about 15 miles of overhead wire, connecting 70 buildings, 9 engine-houses, and 57,884 thermostats with their central station.

The above figures are taken from statements submitted this bureau by the several companies at my request.

FIRE-ALARM BRANCH.

New construction in this branch during the past year has been chiefly confined to Dorchester, all the circuits having been rebuilt and two new box circuits and one telephone circuit added to the service, for the purpose of providing greater protection to the district by placing a less number of boxes in each circuit, and altering their connection in accordance with the custom hitherto followed in the construction of all new work in recent years.

The reconstruction of circuits 9, 10, 24, and 38 has been done with new wire throughout, including all loops and drops, and the covered pipe wires used in making connections with the boxes.

The new box circuits are numbered 30 and 31. The telephone circuit has been run to the house of Engine Company No. 19, and is so constructed as to admit of a multiple connection of the instruments which are at present placed in series.

Telephone circuits 5, 6, and 24, running respectively to South Boston, Roxbury, and the South End, and 27, connecting with houses of the Inspector and Deputy Inspector of Wires and chief of the department, have been changed from series to multiple connection, as experience has demonstrated that the efficiency of the service is greatly increased thereby, the interference caused by induction in the lines being almost entirely eliminated.

Telephone circuits 7, 9, 13, 14, 15, 17, 18, and 25 have also been reconstructed and made metallic, and are ready to be connected in multiple as soon as the work can be taken up.

Twenty-one high-resistance generators (one thousand ohms) have thus far been used in the multiple connections.

A new telephone has been placed in the house of Commissioner Murphy and connected with No. 11 circuit.

Circuits 4, 14, 20, 21, 22, 39, and 41 have been reconstructed from City Hall to Pemberton square.

The wires running along the line of Fourth street, from Dorchester to I street, comprising a part of circuits 1, 11, and 42, and telephone circuits 5, 9, and 14, have been renewed and transferred from roof structures to new poles.

Circuits 1, 11, and 42 have also been rebuilt from the corner of Dorchester avenue and Sixth street, to a point at the corner of Eighth and Mercer streets. Circuits 3 and 25 have been extended from Dover to Northampton street on account of rebuilding of Dover-street bridge, and the submarine cable and old wires have been removed from the bridge for the same cause.

Circuits 1, 11, and 42 have been removed from roof fixtures and transferred to a line of poles along Eighth street, from H to L street, new wire being substituted for the old.

New wires have been run on Bunker Hill street, between Lexington and Quincy streets, and connected into circuits 12, 16, 39, and telephone circuit 1. Special circuits have been run from houses of Engines 7 and 15, connecting with call bells at Federal-st. bridge, for the purpose of facilitating their passage over the draw when responding to alarms. The box gong service has been extended to the house of Ladder No. 16, and new mechanical spring-gongs have been substituted for the direct-acting apparatus in the Dorchester houses connected with No. 38 circuit.

A cable containing thirty conductors has been run from the basement of City Hall to the head-room in the dome, connecting with the underground cable and circuits 7, 8, 9, 10, 13, 19, 23, 24, 30, 31, 38, and 44, and telephone circuits 6 and 19 are now working through the same from headquarters to Waltham street. A conduit containing four ducts for underground service has been constructed from Harrison avenue through Bristol street to the new headquarters building, with two manholes for running the cables when desired.

The underground service in the above-named circuits has been successfully carried on during the past year, and arrangements are being made for considerable extension in this

direction in the coming season. Box 54 has been placed on an ornamental street lamp-post on Oxford, near Beach street, and connected into the underground cable at that point. Work is now in progress for establishing several more posts with signal-boxes attached along this line, and it is expected that they will be in service at an early day.

It is intended to further increase the efficiency of the service by making use of telephones in addition to the boxes connected with the underground wires. This will be accomplished by placing the telephones in the lower part of the outside shells and operating them by an independent wire, which will form a circuit entirely distinct from those of the fire alarm, notwithstanding that it will run through the same conduit with them.

The boxes throughout the city have been repainted.

One hundred and one new poles have been set, one hundred and twenty-five old ones painted, and sixty taken down, during the year.

Eleven hundred and ninety-five cross-arms and two hundred and fifty extensions have been placed on poles belonging to this branch and those of other companies doing business in the city.

Forty old structures have been removed from buildings, and twenty-five new ones constructed at such points as were necessary to complete the new construction and repair work herein referred to.

Seven new boxes have been added to the service by this branch, and three have been put in by the Auxiliary Company since my last report.

A nineteen-conductor aerial cable was run from City Hall to Horticultural Hall to connect the circuits destroyed by the Tremont Temple fire. Twenty-five hundred feet of ten-conductor cable have been used in short lengths in various places, chiefly for connecting apparatus in the department houses.

A submarine cable with seven conductors has been laid across the draw at Federal-st. bridge.

One hundred and thirty miles of galvanized, nineteen miles of covered iron, and fifty-five hundred feet of Clark wire have been used during the year.

A two-horse team has been added to the construction division and located in Charlestown, stalls for the accommodation of the same having been constructed in the house of Hose Company No. 3.

A storeroom and workshop has been established at 256 Dover street, and the work of the branch has been greatly facilitated thereby. Much work has been done here on stormy days, and the shop has been thoroughly equipped

with many appliances necessary for the comfort and convenience of the employees.

The dynamo service referred to as an experiment in my previous report has continued in successful operation during the year, and has now thoroughly demonstrated that its use throughout the entire system at the new headquarters will be of the greatest benefit to the service. I have recently put in two additional motor-dynamos, connecting the two new Dorchester circuits, 30 and 31, with one of them, and making use of the other for supplying current for operating the group of box-gong circuits. The full capacity of these three dynamos is in excess of the requirements of all the circuits now in service, as far as current is concerned; but I do not consider it advisable to go much further in this direction until facilities have been provided for obtaining power to run them from additional sources, and the transfer of circuits from one dynamo to another when desired. The matter is now under consideration, and it is intended that the new headquarters will be fully equipped with all the necessary appliances to accomplish this purpose.

A new combination four-dial transmitter has been put in service at the central office for operating the box-gong circuits.

It is of the most elaborate design and beautiful finish, and is capable of giving four successive combinations of four numbers each when desired. In appearance and operation it is unsurpassed by any apparatus of its kind in the country.

A set of apparatus, consisting of receiving relays, automatic repeater, testing appliances etc., has been placed in the house of Engine Company No. 9, in East Boston, and is now ready to be connected for service. This is intended to serve as an isolated fire-alarm plant to be operated independently for the protection of the district in the event of the destruction of the lines of communication between it and the central office.

The service has been unexceptionably free from damage caused by storms during the past year, there being at no time any considerable number of the circuits affected sufficiently to interfere with their successful operation.

This result may be attributed not only to the fact that severe storms have been less prevalent in this vicinity than in some previous years, but to the improved methods employed, and thorough manner of doing the work in the construction and maintenance of the system.

Respectfully submitted,

B. S. Flanders,

Inspector of Wires.

BUREAU FOR THE INSPECTION OF WIRES.

The force employed is as follows:

Inspector.
BROWN S. FLANDERS.

Deputy Inspector.
CYRUS A. GEORGE.

Assistant Deputy Inspector.
WILLIAM H. GODFREY.

INSPECTOR OF WIRES BRANCH.

Clerk.
JOHN B. SHEA.

Draughtsman.
JAMES T. BALL.

Examiners.

JAMES E. COLE,
JAMES J. DUNLEA,
JEREMIAH A. FIELD,
WALTER J. BURKE.

FIRE-ALARM BRANCH.

Operators.

CHARLES M. CHAPLIN,
UZZIEL PUTNAM,
JAMES L. CROWLEY,
JAMES L. GETHINS,
RICHARD DONAHUE,
JONA. M. MORRIS.

Assistant Operator.
WM. H. JOHNSON.

Batteryman.
JOHN B. JEFFERS.

Assistant Batteryman.
JEREMIAH E. O'BRIEN.

Foreman of Construction.
HIRAM W. CHERRINGTON.

Repairers.

G. J. H. Gutermuth,
John Flavell,
Wm. H. Barker,
E. M. Illingworth,
Thomas P. Bannon,
Thomas M. Kaine,
James Friel,
Granville S. Mendell,
Issachar Wells,
David Isaacs,
Daniel F. McCarty,
Peter M. Kendrick,
Thomas J. Lythgoe,
Thomas C. Harrington.

Care of Clocks.

Wm. J. Reagan.

A constant watch is kept at the headquarters, City Hall, night and day, by the operators. Each set of operators have assigned to them certain hours of duty, during which time they are responsible for the correct working of the apparatus in giving alarms, and all testing of the circuits and other details pertaining to the service. No operator is permitted to sleep during his watch, unless expressly relieved by some one else, and by consent of the Inspector.

Each operator is accountable to the Inspector for any mistakes that may occur at the office during his hours of duty.

An accurate account is kept of the time of giving each alarm, and of the station from which it originates, and all other necessary information.

There are 564 fire-alarm boxes now in service.

The following boxes are private property: 38 duplicate, 115, 149, 152, 227, 228, 244, 271, 279, 281, 283, 299, 422, 442, 443, 511, 533, 617, 623, 624, 626, 629, 698, 711, 714, 715, 716, 717, 718, 719, 722, 723, 724, 725, 726, 727, 728, 729, 731, 732, 733, 734, 735, 737, 738, 739, 741, 742, 743, 744, 745, 746, 778, 779, 789, 791, 792, 793, 794, 795, 796, 797, 798, 799, 816, 838, 842, 919, 927, 974.

Stock and Fixtures.

Magnetic fire-alarm apparatus, the whole cost of which is about $161,000. Working lines of wire, about 705 miles; signal-boxes in use, 564; striking-machines, 23; gongs, 135; box gongs, 69; tappers, 11; vibrators, 5; local registers in department houses, 44; one electric watch-clock; two repeating machines for striking signals; relays in use, 74; eighteen-pen registers, 2; office bells in use, 7; telegraph keys in use, 36; main circuit annunciators, 2; local ditto, 2; fuse-boards, 2; telephones in use, 85; 2 switch-boards; 40

galvanometers; 1 fire apparatus covering map; 2 portable rheotropes; 1 typewriter; 1 chronometer; 1 telephone switch-board at headquarters; 1 ditto in chief's office; 1 set telegraphic apparatus in inspector's house; 9 sets telegraphic apparatus in assistants' houses; 2,046 battery-cups in use at central office; 50 cups dry battery in house of Engine No. 15; 50 ditto in house of Engine No. 10; 50 ditto in house of Engine No. 14; 50 ditto in house of Engine No. 23; 60 ditto in house of Engine No. 25; 80 ditto in house of Engine No. 9; 14 spare battery-cups; 203 spare porous cups; 239 spare battery-cups at shop; 300 lbs. sulphate of copper; 300 lbs. zinc; brackets, wire, insulators, etc., office furniture, bedsteads, bedding, and sundry other articles.

IN INSPECTOR'S OFFICE.

1 high-current testing-board; 1 volt-meter; 1 Am-meter; 1 mil-am-meter; 2 high resisting generators; 1 rheostat; 1 chlo. silver dry-cell battery; 1 typewriter; 1 copying-press; 1 safe.

ALARM BELLS.

The Fire-Alarm Telegraph is connected with the following bells:

Adams School-house, Sumner street, East Boston, steel, 2,995 lbs., owned by city.

Bunker Hill School-house, Charlestown, 2,009 lbs., owned by city.

Chapman School-house, Eutaw street, East Boston, steel, 3,109½ lbs., owned by city.

Chemical Engine-house No. 4, West Roxbury, owned by city, weight 1,059 lbs.

City Hall, Charlestown, composition, 3,600 lbs., owned by city.

Engine-house No. 16, Temple street, Dorchester, composition, 4,149 lbs., owned by city.

Engine-house No. 17, Meeting-House Hill, Dorchester, composition, 4,000 lbs., owned by city.

Engine-house No. 18, Harvard street, Dorchester, composition, 3,184 lbs., owned by city.

Engine-house No. 19, Mattapan, Dorchester, composition, 2,927 lbs., owned by city.

Engine-house No. 20, Walnut street, Dorchester, composition, 3,061 lbs., owned by city.

Engine-house No. 21, Boston street, Dorchester, composition, 3,026 lbs., owned by city.

Engine-house No. 28, West Roxbury, composition, 4,000 lbs., owned by city.

Engine-house No. 29, Brighton, steel, 1,535 lbs., owned by city.

Engine-house No. 30, West Roxbury, 300 lbs., owned by city.

Engine-house No. 34, Brighton, composition, 1,501 lbs., owned by city.

Engine-house No. 40, Orleans street, East Boston, composition, 817 lbs., owned by city.

Faneuil Hall, steel, 5,816 lbs., owned by city.

Lewis School-house, Dale street, Boston Highlands, composition, 3,104 lbs., owned by city.

Maverick-street Church, East Boston, composition, 2,000 lbs.

Princeton-street School-house, East Boston, composition, 2,470 lbs., owned by city.

Saratoga-street M. E. Church, East Boston, steel, 1,968 lbs., owned by city.

Warren School-house, Charlestown, composition, 3,000 lbs., owned by city.

Winthrop School-house, Charlestown, composition, 3,000 lbs., owned by city.

Bells owned by the city, which have been disconnected from service, are located as follows:

Fire-Alarm Repair-shop, bell formerly used on Phillips School-house, composition, 900 lbs.; bell formerly used on house of Chemical Engine 5; one composition, 400 lbs., formerly used on house of Chemical Engine No. 4; one composition, 400 lbs., formerly used on house of Chemical Engine No. 6; and two small bells from other locations.

Engine-house No. 1, Dorchester street, South Boston, composition, 800 lbs.

Engine-house No. 2, composition, 800 lbs.

George-street School-house, Boston Highlands, composition, 4,160 lbs.

Hook and Ladder house, No. 4, Dudley street, Boston Highlands, composition, 3,509 lbs.

Lawrence School-house, B street, South Boston, steel, 3,400 lbs.

Lincoln School-house, Broadway, South Boston, composition, 3,110 lbs.

Quincy School-house, Tyler street, composition, 2,941 lbs.

Rice School-house, Appleton street, composition, 3,042 lbs.

Smith-street School-house, Highlands, composition, 4,083 lbs.

Ticknor School-house, Dorchester street, Washington Village, steel, 2,995 lbs.

Trinity Church, Trenton street, East Boston, composition, 1,760 lbs. Formerly used on Castle-street Church.
Van Nostrand's Brewery, Charlestown, composition, 818 lbs. Formerly used on Boylston School-house.
Walpole street, Boston Highlands, composition, 2,958 lbs.
Wells School-house, Blossom street, composition, 1,675 lbs.

Public Clocks.

The following public clocks, 40 in number, are taken care of by the Fire Department.

City Proper.

Arlington-street Church.
Charles-street Church.
Christ Church, Salem street, owned by city.
Commercial Wharf.
Lynde-street Church.
Odd Fellows Hall, Tremont street, owned by city.
Old South Church, owned by city.
Old State-House, owned by city.
Park-street Church.
Suffolk County Jail, owned by city.
St. Stephen's Church, Clark street, owned by city.
Shawmut-avenue Church.
Tremont M. E. Church, owned by city.
Young Men's Christian Union, owned by city.

South Boston.

Bigelow School-house, owned by city.
Gaston School-house, owned by city.
Lincoln School-house, owned by city.
Phillips Church, owned by city.
St. Augustine Church, Dorchester street, owned by city.
Ticknor School-house, Washington Village, owned by city.

East Boston.

Central Square Church.
London-street Church, owned by city.
Lyceum Hall, owned by city.
Trinity Church, owned by city.
Orient Heights Church, owned by city.

Boston Highlands.

Winthrop-street Church, owned by city.
Metropolitan stables, Tremont street, owned by city.
Roxbury High School, owned by city.

Dorchester.

Baker Memorial (Upham's Corner), owned by city.
Neponset Church.
Tileston School (Mattapan), owned by city.
Unitarian Church (Milton Lower Mills).

Charlestown.

Bunker Hill Church.
City Hall, owned by city.
Harvard Hill Church.
High School-house, owned by city.
Unitarian Church.

West Roxbury.

Dr. Strong's Church.
Unitarian Church.

Brighton.

Bennett School-house, owned by city.

B.F.L. CIR.
MAR 15 1899